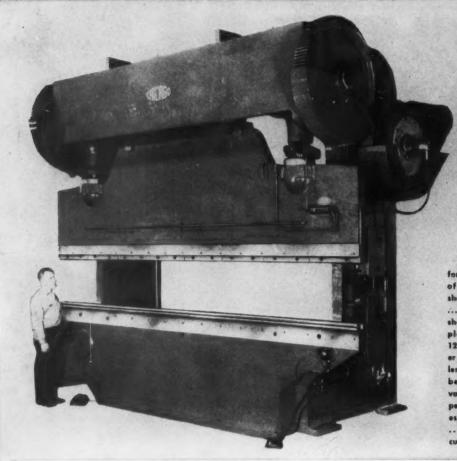


# Commercial STRY AUGUST 1954



Operations include forming, gang-punching of irregular and special shapes, channels, angles ... bending of bar, pipe, sheet ... from mild steel plate up to 1/2" thick, 12', 6" long, and greater thicknesses in shorter lengths. Fabrications may be material handling, vats, alloy, bins and hoppers, tanks, vessels, boxes, frames, retorts, muffles ... and a hundred other custom-built products.

### HERE'S HEAVY MACHINE CAPACITY FOR Your JOB WORK in Connecticut

CHICAGO PRESS BRAKE (see above) Capacity 12'6" x 1/2" mild steel

BUFFALO ANGLE ROLLS Capacity 3" x 3" x 3%"

WEBB PLATE BENDING ROLLS Capacity 6' x 1/2" mild steel

COLUMBIA SQUARING SHEAR Capacity 10' x 3/8"

G. E. FILLERARC WELDING EQUIPMENT Capacity 600 amp.

Rolock Inc. is well situated and unusually well equipped to handle the job work you require within the machine capacities herewith listed.

Our skilled engineers, machinists and welders are very familiar with fabricated metal production of many varieties. Write or call us for quotations on work suited to our equipment.

# Connecticut DUSTRY

MANUFACTURERS' ASSOCIATION OF CONNECTICUT, INC.

VOL. 32 - NO. 8 - AUGUST, 1954

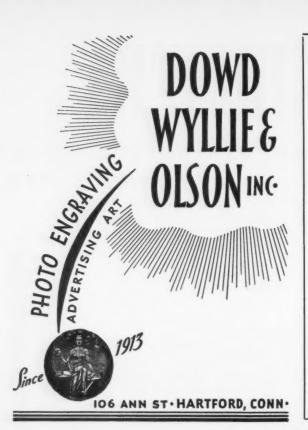
L. M. BINGHAM, Editor

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Published monthly by the Manufacturers' Association of Connecticut, Inc., with executive offices at 928 Farmington Avenue, West Hartford, Connecticut. Entered as second-class matter January 29, 1929, at the post office at Hartford, Connecticut, under the Act of March 3, 1879. As the official magazine of the Manufacturers' Association of Connecticut, Inc., it carries authoritative articles and notices concerning the Association activities. In all other respects the Association is not responsible for the contents and for the opinion of its writers. Subscription rates: one year \$2.50; 25¢ a copy. Subscribers should notify publisher promptly of changes in address. Advertising rates on application.



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If you are, an advertising message published regularly each month in CONNECTICUT INDUSTRY, telling of your facilities and skills, should help your personal and direct mail efforts to secure some sub-contracts from the prime contractors in this state—the majority of whom are readers of this magazine.

Closing date for copy is the first of each month preceding the month of issue. Write today for our low-cost advertising rates.

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928 Farmington Ave., West Hartford, Conn.

# Are Your Dealers Listed Under Your "TRADEMARK" in the YELLOW PAGES?





A.O.Smith





Here are some of the famous TRADEMARKS heading up listings of local dealers in the YELLOW PAGES of telephone directories.

When your customer is in the market for your goods, be sure he knows where to find your dealers through having your TRADEMARK represented in the YELLOW PAGES.

For full information about TRADEMARK representation in any telephone directory in any area of the state or nation — wherever your dealers are located — just ask your local telephone business office to have a Trademark Representative get in touch with you.

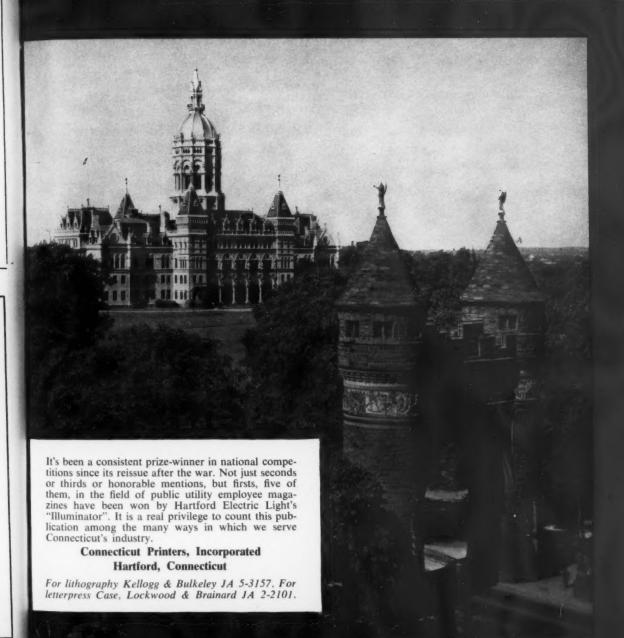
9 OUT OF 10 PEOPLE USE



AS A BUYING GUIDE

THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY
OWNED AND OPERATED BY AND FOR CONNECTICUT PEOPLE

# The reford Electric Light Company Light Light Light Company





## Any Time Is Selling Time - For Service

By LUCIUS S. ROWE, Vice President and General Manager
The Southern New England Telephone Company

THE condition of general business activity in Connecticut as well as in the rest of the country this year has brought new emphasis on sales promotion. It's generally realized that the post-war seller's market has disappeared, and that salesmanship is needed again. But we all know that sales and sales alone can't be the only goal of a business that expects to prosper in the long run.

First and foremost, we should bear in mind that our prosperity and even our survival depends upon our ability to satisfy the customer's wants. Unless we're satisfying a want—even though it be a want that didn't exist until we created it—none of us has a sound business. It's up to us, as one business paper phrased it, "to create products that work better, feel better, taste better, look better—and hence, sell better." Creating that better product is the first essential to sales success.

This is not to say that the better product alone will sell itself. Things may have been different in Emerson's day, but today the man who makes a better mousetrap can't sit in the wildnerness and wait for the world to beat a path to his door.

Folks sometimes ask telephone people why we advertise. They have an idea that, as the sole supplier of a desirable product, we're always in a "seller's market"—the customer has no place to turn except to us. We learned a long time ago that the quality product and sales promotion go hand-in-hand. But we know you need a quality product to start with.

We're trying to make our own product better. For some time during and after the war, our chief difficulty was that we couldn't supply it to the customer whenever and wher-

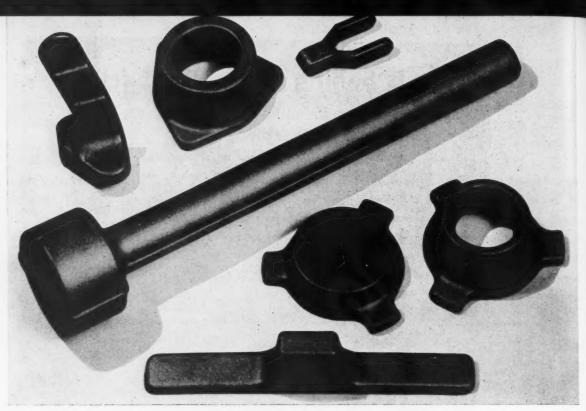
ever he wanted it. Now, we're well along toward eliminating that difficulty. But even during the period of shortages, we were continuing work on improving the product—a process that's been going on since Alexander Graham Bell's first experiments.

These improvements-in our product or in yours-can take two forms. There's the kind that comes from the customers' wants-and the kind that comes from a sort of inner compulsion-your own realization that nothing is so good it can't be made better. For example, we've seen people buy all sorts of gadgets to rig on their telephones, to satisfy their own wants. Some of these attachments look pretty silly to the research man who's working with electronics and microwaves and other highly technical methods to make really basic improvements. But modern thinking recognizes the importance of what the customer wants. The car that comes in a score of color schemes won't run any better than the one that's made only in black-but it sells a lot faster. So, if our customers want lighted dials on their telephones, or shoulder-rests to prop them against the ear, they find us ready to supply them today.

More important, though, are the improvements the customer didn't know he wanted—until we offered them to him. He didn't know he wanted dial telephones, or a radio-telephone in his automobile, or a mechanical device to answer the phone in his absence and to take messages automatically. But he's using them today, because we were not satisfied to leave a good product alone—we kept trying to make it better.

Our business, like yours, is trying to sell the greatest possible use, to the most people, of the product we have to offer, and to make it of the greatest possible convenience to the customer. We believe that keeping in mind his wants and needs—and the service we can supply to meet them—is our best approach to sales, now or any other time.

Mr. Rowe, the author of this month's guest editorial, joined The Southern New England Telephone Company as a clerk in 1925. Successive promotions brought him to general auditor in 1942, assistant general manager in 1947, and his present position in 1948. Active in community welfare work, he is a director of two New Haven banks, The Security Insurance Company, and the New Haven Orchestra Association.



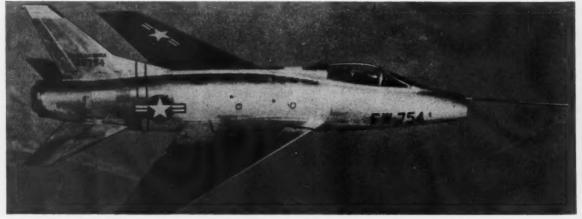
TYPICAL DROP FORGINGS made at West Cheshire plant, using the new wonder metal, titanium. Three of these are jet engine parts and the others are structural members of jet planes.

# Metal Re-birth for the Jet Age at Consolidated Industries, Inc.

F all the violent upheavals that have rocked and changed the outlook of America's aviation industry, none has looked bigger or more important than those resulting from the re-birth of the brilliant "won-

der metal"—titanium. For titanium may be the key to machines that, up until now, existed only in the imaginative minds of science-fiction writers. This so-called "wonder metal" has the all-important strength-to-weight ratio,

and the ability to retain its strength at elevated temperatures that could make it possible for man to build machines capable of withstanding the stress, strains, and temperatures of rocket flights to the moon!



THE FIRST Air Force fighter to fly faster than sound in level flight—the North American F-100 Super Sabre—relies on titanium forgings by Con-Sol to supply strength without increased weight to both her jet engines and her structural members.

#### Contributions to America's Air Strength

Probably few other manufacturers in this country have greater experience in forging titanium to exact specifications than does Consolidated Industries, Inc. of West Cheshire. Behind its plant walls engineers have pioneered in the forging of this untractable metal into parts for America's jet aircraft—parts that are making it possible to operate those "flying fire barrels" at incredible speeds.

Today, Consolidated is one of our country's leading producers of titanium forgings for the aviation industry. Indeed, there are few military aircraft in America's air arm that do not use forgings, either of titanium, aluminum, or alloy steel, by Con-Sol.

The dart-shaped jet fighter that illustrates this article is the Air Force's North American-built F-100 Super Sabre, the far-advanced successor to the F-86 Sabre Jet of Korean War fame. The recent news that the F-100 exceeded the speed of sound in level flight—the first Air Force operational jet fighter to do so—was news of an almost personal nature to the folks at Consolidated Industries. For this aerial thunderbolt makes extensive use of titanium forgings, many of which were



TOP MANAGEMENT of Consolidated, shown here with their amiable boss, company president Thomas Creaven, holds regular meetings to appraise company progress and plans for the future. Seated clockwise around the table are Messrs. Ernest E. Fentzlaff, in the foreground, James Donnelly, Joseph Viviano, vice president; Thomas Creaven, president; Miss Ruth Jepson, secretary-treasurer; Messrs. Charles Miller, Arthur Sandell and Gordon Tracy.

produced by Consolidated's skilled personnel.

A bit of the background and makeup of titanium may help to point up the amazing accomplishments achieved by this Connecticut company in the field of titanium forgings.

The "wonder metal," despite its publicity since the end of World War II, is not a new element . . . nor a scarce one. It is the fourth most abundant of all structural metallic elements—more common than all of the lead, zinc, tin, antimony, nickel, copper, gold, and silver on the earth's surface. And it was discovered more than 150 years ago, in 1791, by an English clergyman named William Gregor.

In description, titanium has been called "the middle-weight champion of the metals," for its weight is about midway between aluminum and steel. However, it is in metallic strength-to-weight ratio that this element really stands head-and-shoulders above all others. Titanium actually has the greatest strength in relation to its weight of all the commonly used structural metals! To meet the demand for such a metal, Consolidated Industries turned to titanium for the mass-production of aircraft forgings.

Among titanium's other properties are corrosion-resistance and heat-resistance. With an even greater corrosion-resistance than aluminum, titanium is the only structural metal whose behavior in sea water is practically identical to that in normal atmosphere. This makes it the ideal material for seaplane hulls. As for heat resistance, titanium's



A TRACER-CONTROL milling machine traces an actual three-dimensional model to make duplicate dies for Con-Sol forgings. This machine faithfully duplicates all curves and angles of the master form, assuring dies of precision-accuracy.



QUALITY CONTROL inspection at Consolidated checks all finished forgings against the original prints for accuracy of size. This is but one of the many quality control tests that Consolidated employs.

melting point has been listed as 3,140° F.

Consolidated's metallurgists feel that titanium's high heat resistance, its durability and its promising abilities to withstand shock—its resistance to impact—in addition to the other properties, place titanium in a class by itself.

According to authorities at Consolidated, titanium resembles platinum . . . but in price it is much lower, although it may still be considered too high for common use by manufacturers.

The prevailing market price for titanium sponge (the "raw" metal) is about \$5 a pound. Bar stock suitable for forging is about \$15 a pound, with sheet stock \$20. Yet even at these prices both Consolidated and their customers consider titanium a bargain. Designers and engineers have estimated that in modern aircraft, each pound of weight saved is valued at between \$25 and \$150—savings which the taxpayers who foot America's armament bills can happily applaud.

With the re-birth of titanium—made possible by new processing methods—Consolidated Industries, Inc. recognized its possibilities as applied to

aircraft forgings. Up until that time, the company had engaged in forging steel and aluminum only. Almost without warning, they found themselves turning a sudden sharp corner in the forging field.

The first step was to produce hand forgings of this new metal for test purposes. Months of costly experimentation had to be devoted to die designs, heats, and forging techniques before titanium could be used on a production basis. Among the problems Consolidated encountered was titanium's different coefficient of expansion as compared to other metals which necessitated new die making techniques. It was discovered that although titanium has less shrinkage than steel, dies initially made for the forging of steel parts could be successfully utilized to forge pilot run titanium parts with the resulting finished samples only slightly oversize. Also, unusual care had to be exercised in finishing the die surfaces because titanium picks up and shows even the slightest tool marks.

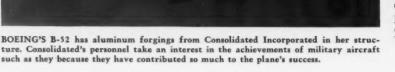
Consolidated also had to contend with working between a narrow range of temperatures. If the forging temperature went too low, titanium, although still fluxible, would laminate in layers rather than flow evenly.

And it was discovered that a surface crack, or even tiny scratches on the titanium bar stock often resulted in scrapped forgings.

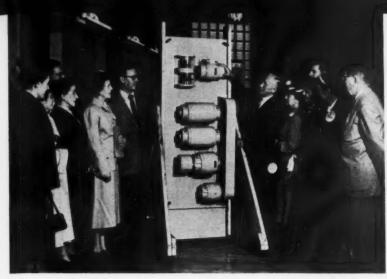
But the West Cheshire Company continued to pioneer in the use of titanium, and, within months, had developed methods of mass-producing top-quality titanium forgings—one of the first companies in America to do so!

During 1952, the facilities of Consolidated Industries, Inc. were more than twice increased . . . and since 1948 the number of personnel has increased six-fold. This was due in part to the great demand for titanium forgings, and in part to the ever-growing use of both aluminum and steel forgings in aircraft.

In 1953, a new die shop providing approximately 4,100 square feet of additional floor space was added to Consolidated's facilities. This shop is devoted exclusively to the production of special dies for forging parts of titanium, aluminum, and alloy steels to customers' exact specifications. At the present time, this space is occupied by eleven of the latest type of Pratt & Whitney Plain and Universal Die Sink-



ney Plain and Universal 1 (Continued on page 39)



WILLIAM H. HAINES, president of Electric Specialty Company, explains a motor generator set used in telephone exchanges. Teachers show interest in the various alternators used to control frequencies for busy signals, coin signals and ringing frequencies.

# Fourth

3

of

# Industry-Education Day In Stamford-Greenwich Area

By DEAN BROSSMAN, Executive Vice President Stamford-Greenwich Council

"I NDUSTRY-EDUCATION DAY is the most intelligent value in good will that we can buy," said the Vice President of one of our largest in-

dustries. "Our local industries made over 500 new friends on Industry-Education Day," was another appraisal.

"We feel that the \$1,300 (normal

operating expenses) which it cost to release our elementary school teachers for I-E Day is a good investment," said the Superintendent of Stamford Schools.

Over 100 letters, written voluntarily by teachers, school principals, and other educators thanking companies which they visited on the Stamford-Greenwich Fourth I-E Day provide ample proof that teachers profited immeasurably from their experiences. Likewise informal comments from representatives of host companies and employee representatives shared the views of educators

on the value of the project.

We have definitely established the fact, and educators and business people alike believe, in the Stamford-Greenwich area that this affair is worth many times the cost. There have been proposals from both guests and host companies alike that Industry-Education Day be held oftener than once a year. There have been suggestions that groups other than teachers be entertained by our industries and business concerns so that they can learn at first hand just what goes on within the companies. But how about the cost? I-E Day costs add up! The Stamford-Greenwich Manufacturers' Council, which has sponsored Industry-Education Day for four years, decided that it would be interesting to make some estimates and perhaps interpret in dollars and cents just what is involved in arranging, planning and carrying out this one day program for somewhat over 500 teachers. What are the "operating costs?' How much is the "overhead?" A quick look at the "operating costs" enables us

HOMELITE CORPORATION employee, Michael Donato, demonstrates the operation of an engine lathe in the Tool Room.





INTERESTED OBSERVERS of the manufacturing process at the Stamford Wall Paper Co., Inc. are four of the teachers who were among the more than 500 who visited area industries, stores and banks. Benjamin Lunt, advertising manager, explains the process.



AT P-M INDUSTRIES, INC., teachers watch lay-out inspection on a casting which will be used as a housing for a large rotor unit.

to come up with the following estimates:

Thirteen busses, \$249.70; pencils (provided by the Manufacturers' Council), \$21.00; lapel badges, \$19.47 (plus hand-lettering done gratis by high schools and technical schools); postage - telephone - supplies, approximately \$50.00.

The following were donated: Radio time, \$75.00; photographs, \$200.00

(several companies sent photograph brochures to their teacher guests); lettering of badges (at less than commercial rates), \$100.00; note pads, \$35.00; lunches, approximately, \$750.00; favors consisting of company products or small mementoes, maybe 50¢ per teacher, or \$275.00.

This gives us a total for "operating costs" of around \$1,750; purely estimates, but probably fairly close.

Now we come to the big item, "overhead"; the cost of time of executives, staff, employees, and perhaps some interruption in production and operations while visitors are being shown through companies.

Executive and staff participants range from the Chairman of the Board. the President and other officers, to Chief Accountant, Assistant Export Manager, employee organization personnel, and people from the shop who act as guides. We estimate that over 100 representatives of management and employees participated in discussion sessions. There were perhaps 50 people or more assigned as guides. Estimating the pay of the guides at \$8.00 per person per half day spent during the inspection trip part of the day, we can charge \$400.00. A conservative average for the management and staff representatives who participated would be 100 people. What is the value of their time? When we consider the Chairman of the Board, President, Vice President, and other officers who participated, and a large number of high paid staff people, should we say \$5,000 for their services?

In trying to make up a balance sheet of course we cannot do so with any degree of accuracy insofar as dollar costs are concerned, but it looks to us as though taking our "operating costs" and "overhead" expenses, the cost to the companies would be somewhere in the neighborhood of \$7,500. Add this to the \$1,300 mentioned above for school operations for the day during which the schools were closed and we come up with a figure of about \$20,-000. \$20,000 is a lot of money. That is a very rough estimate on the balance sheet as to what I-E Day cost our schools, our industries and business concerns. Is it worth it?

Everyone with whom we have talked or who has expressed an opinion in writing, wholeheartedly says, "yes." Here is another piece of evidence that indicates the complete willingness of our educators, our industrialists, and our business people to give full support to a better understanding of how business and industry operate—in supporting a program which through such understanding is helping to protect and improve our American way of life.



ASTE MEMBERS visit Colt's Museum. Left to right, Grant W. Smedley, division superintendent, Stanley Works, New Britain; Arnold C. Lormore, district manager, Hardinge Brothers Co.; Howard A. Wheeler, chief tool engineer, Colt's Mfg. Co.; Paul E. Dillberg, production engineer, Laurel Supply Corp., West Hartford.

# Connecticut 7ool Engineers Day Attracts Technical Men

N May 12, the largest group of Engineers and Industrial leaders ever to meet in the State of Connecticut had their 6th annual "Connecticut Tool Engineers Day" in Hartford.

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hat of and oort usiort-unMore than 1,000 technical men from throughout the state attended the daylong activities.

The doors of five major manufactur-

SEATED AT THE HEAD TABLE were Harry E. Sloan, Jr., president, Cushman Chuck Co.; Richard A. Smith, National Director, ASTE, Pratt & Whitney Division of Niles-Bement-Pond Co.; John M. McNally, vice president, Colt's Mfg. Co.; Wallace E. Campbell, vice president, Fuller Brush Co.; Albert E. Englund, vice president, Jacobs Mfg. Co.

ing plants in the Hartford area were opened for conducted tours. The scheduling of these visits was timed so that it was possible to visit two or even three plants during the day. The participating plants were. The Fenn Mfg Co. in Newington; The Fuller Brush Co., The Royal Typewriter Co. and The Colts Mfg. Co. in Hartford; and in West Hartford the Pratt & Whitney Div. of N.B.P. Co.

A technical session conducted by the Central Conn. Tool & Die Association was held in the afternoon. Progressive, Laminated, and Carbide Dies were all thoroughly discussed as were also various feed mechanisms pertaining to dies.

In the evening the largest banquet in the Association's history was held in the Hotel Bond Ballroom. At the head table sat executives from most of the State's leading industries, as well as representatives from State and local governments. Alfred Bodine read a statement from Gov. John Lodge designating the Day of May 12th "Connecticut Tool Engineers Day." Mayor D. J. DeLucco welcomed the group to Hartford. The Manufacturers Association

(Continued on page 47)



GEORGE BALDWIN, factory manager, conducts a group of ASTE members through the Fenn Manufacturing Company. Mr. Baldwin is shown fifth from right.







REPRESENTATIVES of women's clubs viewed PROCESSES . . .

# Industry Day at International Silver Company

#### Launching and Development of Industry Day Programs

BACK in 1949 Mrs. H. Whitfield Gowrie, of Hamden, then president of the Connecticut Federation of Women's Clubs, introduced a new idea for a club activity that has since grown to be the most popular and best attended semi-annual feature of the Federation's year-round activity

program.

Mrs. Gowrie had observed that manufacturing industry in Connecticut was the chief wealth and job creating activity in the state, but that few women had first hand knowledge of these diversified manufacturing activities and their meaning in terms of the economic welfare of the state and its citizens. Since women, as the homemakers of Connecticut families, have a big stake in any activity that contributes directly and indirectly the lion's share of their families' income, Mrs. Gowrie felt that the time was long overdue for club members to learn how the root-source of this family income was created. Prior to this time the Federation's activities included only fund-raising projects for good causes and educational, social and political activities.

The first Industry Day program was held in Naugatuck in April 1949 during which four management executives participated by giving addresses pertaining to different phases of industry and the operation of our economic system. It was an all-day meeting with two management men speaking at the morning session, and two others at the afternoon session. A discussion or question and answer period followed.

Learning of this important new activity, the Association offered to assist the Federation in arranging future programs along lines its Industry Committee felt were most likely to give club members the maximum information

about the functioning of industry in its role of wealth-producer, while satisfying the wants and needs of people throughout the world by its manufactured products. Out of this offer of assistance and a conference with the Federation President and the Industry Committee Chairman, it was decided that the best overall pattern for such conferences was to combine a brief trip through a different plant every six



ARRANGEMENTS for the Industry Day tour at International Silver Company, Meriden were made by Industry Chairman Mrs. Fred W. Beaucar, left. Also shown are Mrs. Thomas Garry, president, Wallingford Women's Club, Mrs. Rita Fantasia, Plainville, a member of the Bristol Women's Club, and L. M. Bingham, secretary of the Association, who assisted in making the arrangements for the tour.







months, with a luncheon and brief talks of not more than 10 minutes each by several company executives which would acquaint club members with the historical background of each company, its production and sales methods and its employee relations program.

The first Industry Day meeting of this type was held at the United Illuminating Company plant and offices, New Haven, November 15, 1949, when approximately 100 club members learned all about the power industry from its methods and cost of production to how the monthly electric power bill was computed, printed and sealed in envelopes ready for mailing, almost automatically by machines that are more accurate than the human brain.

Since this first combination Industry Day Meeting and plant tour others have been held in the spring and fall each year at the following companies: Raybestos-Manhattan, Inc., Bridgeport; Bigelow-Sanford Carpet Company, Thompsonville; Conde Nast Publications, Greenwich; Landers, Frary & Clark, New Britain; Singer Mfg. Co., Bridgeport; Winchester Repeating Arms Co., New Haven; Hamilton-Standard Div., United Aircraft Corporation, Windsor Locks, Fuller Brush Company, Hartford. Attendance has ranged from 75 to 150 for all Industry Day meetings from 1949 to 1954.

#### The International Silver Tour

The tenth Industry Day meeting held at International Silver Company, Meriden, April 21, drew a capacity group of 223 club members, with some 200 other members being unable to attend for lack of facilities.

The day's program included, for one group, a tour of Sterling Silver manufacturing operations at the company's Factory "L" plant in Wallingford, and for another group a tour of Factory "H" in Meriden, where flatware is made. Both tours, starting from 9:30 to 9:45 A.M., covered stops and explanation by guides at all principal points in the evolution of flatware and sterling from its inception as a stylized idea to the finished product ready for use and decoration of the family table.

Although keen interest was displayed by Federation members in the painstaking operations required to produce finished flatware and sterling, the

(Continued on page 51)



THE MONTGOMERY COMPANY exhibited (on the left) samples of Neva-Tarn non-tarnishing metallic yarns and fabrics made from them in gold, silver and colors. On the right are samples of electric conductor threads and cords with examples of end uses on electric razors, telephones, hearing aids, decorative ribbons and garlands.



AIRCRAFT ACCESSORIES and tools and power rollers for rolling lawns and bituminous surfaces were included in this display of products made by the Gabb Special Products Division of The E. Horton & Son Company.

# Industrial Exhibit Featured At Windsor Locks Centennial Celebration



THE product exhibits shown here were part of an industrial exhibition in observance of the 100th anniversary of the incorporation of the Town of Windsor Locks. "Progress," the keynote of the three day centennial celebration, was suitably carried out in the display of the many diversified industrial products manufactured by local companies.

Other exhibitors not pictured here were C. H. Dexter & Sons Co.; Hamilton Standard Division, United Aircraft Corporation and The George P. Clark Company.

THE HORTON CHUCK DIVISION of The E. Horton & Son Company displays a variety of its chucks, including the 42" J-Series Chuck (center) used for machining jet engine parts, at the Industrial Exhibit during the Windsor Locks 100th Anniversary Celebration.

## **Legal Implications of Industrial Noise Problem**

By NOEL S. SYMONS, Member of the Law Firm Brown, Kelly, Turner & Symons, Buffalo, New York

THIS is the third in a series of articles published in Connecticut Industry to alert Connecticut manufacturers to the many implications of the noise problem in industry. The first two articles were published in the March and April issues. The author of this article is former Chairman of the Insurance Law section of the New York State Bar Association, Legal Consultant on Industrial Noise to Associated Industries of New York State, and affiliated with many other legal organizations dealing with Workmen's Compensation problems.

→HE highest Courts of New York and Wisconsin have ruled that employees are entitled to schedule awards under the Workmen's Compensation Law for partial loss of hearing due to their occupation although they have lost no wages or time from their work. Such awards, the Courts said, are payable to workers for their physiologic impairment although it did not result in any diminution of their earning capacity. The Court's ruling in New York was made despite clear language in the law defining "disability" in occupational disease (as distinguished from accident) cases as "the state of being disabled from earning full wages at the work at which the employee was last employed." Since this decision expanded the coverage of the law by opening the door to awards for a condition not previously regarded as compensable it was, many believe, "judicial legislation."

#### **Waiting Period in New York**

Following the New York decision the Workmen's Compensation Board began deferring awards until after the employee had been separated from the injurious noise for at least six months. This "waiting period" was based on the medical theory that part of the hearing loss is due to temporary "fatigue" which clears up and disappears after the indicated separation from the harmful exposure. Because this has prevented any final determination of the permanency" of the loss, it has resulted in postponement of awards to all employees who are continuing their work in deleterious noise levels. Although vigorously challenged, continuation of this policy pending further re-

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NOEL S. SYMONS

search on the subject was recommended last December by a Committee of Consultants on Occupational Loss of Hearing appointed by the New York Board to advise it on various aspects of the problem. Many believe that this policy has been the only dam against a flood of costly claims. Purely an administrative ruling which could be changed at any time, it has in no way allayed the fears of New York industry as to what may lie ahead.

#### **Further Studies in Wisconsin**

In Wisconsin, while the Court case was pending, the Legislature amended the law to make a wage loss due to the hearing impairment a prerequisite to an award and limiting the amount payable. It has been stated that this was a temporary measure so the matter could

be studied further. As in New York a medical group has been appointed to answer various questions, and possible permanent legislation is currently being explored by appropriate committees. In neither of these two states, in both of which the problem is acute, has any final or satisfactory solution been found.

#### **A National Problem**

Noise in industry has recently been referred to as a national problem which is "urgent, imminent and fraught with danger." Organized Labor is cognizant of it. Some unions are studying the matter; others have stated that they will press for enabling legislation in states where occupational loss of hearing is not now compensable. Because of this, and because of the possibility of existing laws being interpreted to permit awards for occupational hearing impairment, industry generally should be fully informed.

#### **Reasons for Gravity of Problem**

The problem is one affecting the welfare not only of employers and employees but of the public which under the *modus operandi* of the compensation system pays the cost of all awards in the increased price of the manufactured product or of the service rendered. Reasons for concern include:

#### 1. The Potential Cost

While no accurate estimate of the potential cost is yet possible because of the many unknown factors involved, nevertheless, even on a conservative basis, it is staggering. Although an American Standards Association Subcommittee recently reported that it could not formulate any standards to differentiate between safe and unsafe exposures, the New York Committee of Consultants did recommend standards for all noise levels over 90 decibels. While these proposed criteria are related to the length of exposure, to the intensity of the noise at the various frequencies in the noise spectrum, and to the factor of individual susceptibility, nevertheless they permit argument that every noise level over 90 decibels is harmful—an argument difficult to rebut because of the presumption in the New York statute supporting any claim filed unless overcome by the employer by "substantial evidence to the contrary."

At a recent symposium sponsored by the Illinois Manufacturers Association Dr. Howard P. House, Chairman of the Subcommittee on Noise in Industry of the American Academy of Ophthalmology and Otolaryngology, stated that one of out of every ten persons in this country has some type of impaired hearing, and there are other estimates

which are even higher.

And a recent "Noise Survey of Manufacturing Industries" conducted by the Armour Research Foundation in Chicago suggests that industrial noise levels over 90 decibels are more prevalent than many have suspected. (Of 580 locations surveyed in the industries studied the noise level was 90 decibels or over at 408 or 70.3 per cent of such locations). This combination of facts, viz. the widespread extent of deafness and of noise levels over 90 decibels, coupled with standards in New York fixing hazardous exposures starting at this level and the statutory presumption which in effect requires the employer to disprove the claim in order to escape liability, indicates why industry in New York state is so concerned about the ultimate potential cost.

#### 2. Accrued Liability

Also serious is the question of accrued liability. In most cases the condition has been developing over a long period of years during which, since the condition was not regarded as compensable, industry created no reserves to liquidate the claims, and its insurance carriers did not collect premiums based on the hazard. In the case of "accidents" insurance rates are fixed to cover a future liability which may or may not materialize depending on the element of chance. "Occupational diseases," on the other hand, are quite different. Not only is the cause often more obscure and complicated by non-occupational factors, but the exposure to harm is generally continuous and uniform so that the percentage of those who suffer damage may be far greater, thus affecting the degree of cost to the industry involved.

The difficulty in suddenly being asked to pay a large bill for past liability

neither provided for nor legally anticipated is obvious. As Henry D. Sayer, General Manager of the New York Compensation Insurance Rating Board, has said, "In assuming now to make provision out of the moneys of industry, for the effects of years of work in an environment of noise, we are assuming an ability to do the impossible."

This same problem of accrued liability threw thousands of men out of work in New York in the nineteen-thirties when silicosis first became compensable. This was due to the fact that employers in the dusty trades could not obtain insurance coverage at rates which would permit them to operate. This critical situation was not solved until the Legislature enacted emergency legislation drastically limiting the employer's liability and barring awards entirely for "partial disability."

The present problem of accrued liability is more serious because industrial noise is more prevalent than was the silicosis hazard, and the exposure is unquestionably more difficult to control. When, either by legislation or Court interpretation, we create obligations stemming from past exposures which, during their existence, were not regarded as creating either legal or economic rights, we are headed for trouble, and any state studying the noise problem should bear this fact in mind.

#### 3. Departure from Wage-Loss Concept

Awards for occupational hearing impairment where the employee has suffered no loss of earnings represent a dangerous principle the expansion of which could jeopardize our compensation system, for if we open the door to awards for non-economic physiologic and social losses, or to impairment of the senses where there is no wage-loss, there is no logical stopping point, either legally or medically. As Arthur Larson, Under Secretary of Labor, has said "if we cut loose from the earning capacity concept, and start recognizing the principle that compensation is payable for physical impairment as such. we will have no way of knowing where the process will stop."

Workmen's compensation, like our Federal Social Security and unemployment insurance laws, is basically a form of income loss insurance. The system grew out of what was equivalent to a compromise between Labor and Industry under which the employee gave up his right to sue for "damages" and the employer gave up his right to claim that

the worker's injury was due to the latter's negligence, the negligence of a fellow servant or to his assumption of the risk. In place of this there was substituted a scheme of partial replacement of lost income for any work-connected injury—later expanded to include occupational diseases—regardless of who may have been at fault. Our system was derived largely from the earlier British Workmen's Compensation system which was based on partial replacement of lost wages, and with the cost being passed on to the employer who could, in turn, transfer it to the consumer.

As part of this system there has been created, in most states, the so-called schedule awards" under which the employee is paid a fixed number of weeks compensation in accident cases for loss or loss of use of members such as an arm, leg, hand, etc. These schedules are payable regardless of wage loss but they do not, as Larson has pointed out, deviate from the wage-loss principle. They are simply a convenient mathematical way, fixed by statute, of estimating the probable future wage loss in the average case, and they were adopted as the measure of the liability so that employers and carriers could close their files and not have to keep them open during the balance of the worker's life, or until such time as the impairment resulted in a wage-loss. As Judge Harold R. Medina recently said, the schedules are designed "to ameliorate an otherwise intolerable administrative burden by providing a certain and easily applied method of determining the effect on wage-earning capacity of typical and classifiable injuries." In his opinion Judge Medina referred to the wage-earning concept as "the only principle that holds Compensation Law together as a consistent whole."

Our difficulties have arisen from trying to apply the schedules, devised for use in accident cases, to occupational loss of hearing claims in disregard of the basic actuarial and etiological differences between accidents and occupational diseases mentioned earlier. Furthermore, in most cases involving industrial loss of hearing the employee actually has no present or prospective wage loss so that the reasons which led to the adoption of the schedules in accident cases do not exist. The assertion of these claims is, in effect, an attempt to vitiate the compromise between Labor and Industry, for in maintaining this position the employee is

(Continued on page 47)

# Boosting Export Sales

## By Direct Mail Campaigns

By HANS H. BOHLMANN, Chairman MAC Export Committee and Export Manager, The Seamless Rubber Company, New Haven

THIS is the third in a series of articles by Mr. Bohlmann which give helpful hints on exporting both for the benefit of companies now engaged in foreign trade and those who may be contemplating entering the export market.

N THE complex and ever changing pattern of psychological warfare that goes on between the countries of the world for supremacy in export selling, we must set the grindstone to whirling and sharpen up the weapons at our command to help us in the battle. Ever since the military fighting more or less came to an end, our foreign competitors have been making mighty efforts to organize raids on our big share of the export business that we have been enjoying in world markets. Their handiest weapon has been, in many cases, lower labor costs and sometimes they have even made sales regardless of cost because, as is well known, countries like Great Britain, Germany and Japan, must export in order to live.

#### **Battle of Exports**

Knowing how desperately other countries need the foreign exchange derived from exports to other countries, the American exporter realizes full well that this "battle of exports" will not be easily won, and yet during the last few years, as he has felt the pressure of competition from foreign sources, a small, clear note of reassurance is audible. Our customers abroad, though serenaded daily with the cut-rate piper's songs, have not turned from us en masse as at one time it seemed they might. It appears, therefore, that superior quality is holding the line and with this fact before him, the manufacturing exporter reviews his forces periodically to be sure he is doing all he can to support loyal representatives and customers abroad and to expand his markets to areas where he has not sold before.

If the economic position of the nations of the free world continues its present rate of improvement, the wide-



H. H. BOHLMANN

spread desire of present and potential overseas customers to purchase a greater volume and a larger variety of American goods, is likely to become gratified. Moreover, our volume of imports is at nearly the all-time high of close to \$11 billion in 1951 and therefore virtually balances our commercial exports which now run at an annual rate of about \$12 billion. These figures clearly indicate that opportunities for sales expansion exist for the individual American exporter who goes about to exploit them in the right way.

#### Direct Mail—A Valuable Aid

A very important tool in this connection is a direct mail sales campaign. It is the shortest distance between two points and indispensable for the exporter under nearly all conditions.

In the first place such campaigns are useful in that most vital step of securing a good distributor in a new or old market to sell the exporter's products

successfully. Where actual or potential sales justify the expense it will often pay the exporter to travel abroad to appoint a new representative on the spot. Whether he goes overseas or not, the export executive will do well to follow the time-tested procedure of consulting market guides with ratings compiled by foreign credit organizations, as well as trade lists prepared by the U.S. Department of Commerce. He selects a number of likely prospects from these sources for an exchange of correspondence which eventually results in the conclusion of a mutually beneficial agreement with one of the firms. Before that happens, the exporter will have obtained a complete credit report and perhaps also a World Trade Directory Report on the prospective distributor from the U.S. Department of Commerce. The information in these reports will disclose with some degree of accuracy whether or not the organization will be the best one to handle the products of the foreign trader, although, as stated previously, it is desirable for the export manager to conclude final negotiations in the field, if at all possible.

The local representative nearly always welcomes a direct mail campaign and as a matter of course should receive copies of communications that are sent to accounts in his territory. His name should be mentioned which will greatly assist him in clinching new business.

A direct mail sales campaign is especially effective if it is timed to coincide with the exporter's arrival in the overseas sales territory. Campaign letters to be successful should be accompanied by latest price lists and illustrated material and sent directly to distributors and other important wholesale customers, announcing the exporter's forthcoming visit to discuss mutual problems. The local representative will accompany the exporter on such visits to the customers. Since they have had the time to go into their problems, the

(Continued on page 64)

# A Guide to Management Appraisal of Its Advertising

By ROLAND B. SMITH, Assistant Professor of Advertising
The University of Connecticut

#### Part III

How to Increase Consumer Valuation of Your Product Through Advertising

#### Introduction

E have been considering the proposition that products become important to people, they become valuable, if those products are perceived as a means toward desired goals.\* In this the effectiveness of the individual advertisements is of evident importance. On the basis of the analysis presented in these articles value is the remainder of "desire" less "cost" V = D — C). (Desire is the psychological drive that inclines the consumer toward the product advertised. "Cost" is the sum of the factors that militate against the purchase, e.g. money paid, foregoing some other purchase, reaching a decision to buy, going to a store, etc.) It follows then that value can be created either by increasing desire intensity, decreasing the "costs," or both.

The following criteria are pointed toward this dual objective.

### 1—Does Our Advertising Tell Enough to Create Desire?

It is not enough just to tell the reader what the product is. Copy and art must go further and make clear the various uses of the product, where it can be used to best advantage, how often, when and how it should be used for greatest satisfaction. Especially for highly competitive products the advertising should make clear in what ways and why the product is the best means (at least for the "costs" involved) for achieving a desired goal.

There is no real need for worry about long copy—so long as the copy tells consumers what they want to know. Motivation arises from dissatisfaction,



ROLAND B. SMITH

Consumers are eager for relief. They will "sit still" just as long as they feel they are finding the means for that relief.

#### "Imagineer" for Prospects

In addition to telling consumers the "what" and the "why" and "how" of products, desire can be aroused and intensified if the advertising also translates these facts into benefits. The advertiser should "imagineer" for the prospects.

"Imagineering" consists of painting graphic pictures in word and illustration of the enjoyments, the relief from dissatisfaction, to be found through possession of the product. It is better that the advertiser describe the meaning of the benefits than to leave this entirely to the consumer's imagination. To illustrate, one might say that this electric iron is light weight. One might go further and interpret light weight in terms of faster ironing time, less fatigue, relief from the depressed feeling suffered by so many housewives as they look at the week's ironing to be done. But, one might go still further in "imagineering" and picture what a typical housewife may truly want: free-

dom from housework, freedom to enjoy more social and community life just freedom! He thereby visualizes the consumer's goal and shows how the iron is a believable means to it.

#### Do Not Assume Knowledge

Advertisers will be wiser if they assume their prospects do not know anything about the product and assume also that the prospects will not take the trouble to "imagineer" for themselves. The net increase in the U. S. population is enough to create a medium-sized city (more than 200,000 population) every thirty days. To repeat an old but potent phrase: You're not addressing a crowd, but a parade (and a mentally lazy parade at that).

#### 2—Is Our Product Being Associated With the Right Goals?

To link corn plaster and sex might be different, it might be novel, and to some it might seem clever. But actually, of course, the goal sought by most purchasers of corn plasters is relief from stabbing pain. Success in advertising depends not so much on cleverness as it does on close association between the product and the right consumption goal. This is illustrated by a pair of advertisements published in POWER by Consolidated Safety Valves. One advertisement (A) was headlined "THE MAXIFLOW HAS ALL 3 . . . CA-PACITY, PERFORMANCE, ECON-OMY." The other advertisements (B) carried the headline: "SINCE 1879 THERE'S OVER 70 YEARS KNOW-HOW BUILT INTO CON-SOLIDATED MAXIFLOW SAFETY VALVES." When businessmen buy valves do they want capacity, performance and economy, or do they prefer "over 70 years' know-how?" Our analysis would suggest the former. Starch readership ratings confirm this by a ratio of three to two.

For another example, we might note two advertisements by Merrill Lynch,

<sup>\*</sup> The two preceding articles concerned "Why Consumers Buy" and "How Advertising Increases the Value of Products." Copyrighted by Roland B, Smith.

Pierce, Fenner & Beane, split-run in the NEW YORK NEWS. These ads, like the previous pair, were the same size, with identical copy. The two headlines were: (Adv. "A") "No 'X'S'... NO 'Z'S'..."; (Adv. "B") "DIVIDENDS FOR SALE." Question: Are prospective investors seeking "No X's" and "No Z's", or are they seeking "Dividends"?

It is true that as yet no advertiser has been able to learn exactly what consumers want. Consumers themselves do not always know. But insofar as psychology and sociology have given us some clues to consumer goals, advertisers can use this knowledge in creating more effective advertisements.

#### 3—Does this Advertisement Stress Benefits or Talking Points?

The difference between a talking point and a benefit is the difference between what one wants to sell and what the other wishes to buy. Talking points are the product features. Often they are the characteristics that make the benefit possible. But the consumer is not initially interested in, nor attracted by, the source of the benefits. He is attracted by the benefits themselves. Only after he feels the benefits are worth his consideration does he become interested in how or why the benefits are created.

Take for example a split-run test for "Self-Seal" envelopes by the U. S. Envelope Company in an issue of WOM-AN'S DAY. The advertisements differed largely in headlines and slightly in copy, but illustration, size and position were the same. One advertisement stressed a talking point: "SELF SEAL ENVELOPES ARE NOVEL... DIFFERENT... BETTER": while another stressed a benefit—relief from dissatisfaction: "SHE WANTS TO AVOID LICKING GLUE." As measured by keyed coupons the "Novel" appeal rated 95, while "Avoid Licking Glue" rated 163.

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#### 4—Does Our Advertising Support the Emotional Appeals with Reasons for Buying?

There are usually several ways of satisfying a desire. It is at this point where reason may exert considerable influence over the buying decision. A consumer may want a new car. Which one should he buy? Since the purchase represents (for most, anyway) a decision of some consequence selection cannot be made without some thought as

to price, durability, prestige, comfort and so on. An automobile advertisement that supplies sound reasons for buying as support for the emotional drive set up by the basic appeal will encourage such prospects to satisfy their desire through the purchase of the advertised product rather than by some other means.

Two advertisements for Hudson automobiles were tested in the SATUR-DAY EVENING POST. The test was to determine which advertisement was more effective in creating desire among male readers for a Hudson. The advertisements differed in layout and in copy, but the difference is reflected in their headlines which were: "WHY HUD-SON IS THE MOST DURABLE CAR YOUR MONEY CAN BUY," and, "RULES THE ROAD AND AMERI-CA KNOWS IT!" The first adverisement outpulled the other by almost two to one in readership. But more important it was more successful in building preference for Hudson ownership!

#### **Provide Facts**

Mail order advertisers have long known the importance of specific information as backing for buying motives. March (1953) in Hot Springs, Va., Mr. Richard Crisp told his Association of National Advertisers audience the results of four years of testing by his agency, Tatham-Laird, (reported in ADVERTISING AGE for March 23, 1953, p. 91).

These results testify further to the importance of offering information and reasons for buying. One case will illustrate. In six different tests an advertisement by General Electric for its electric iron was found to have recall value of 99%. The women interviewed could remember the weight of the iron, its control mechanism, its cost, brand name, how it could iron around buttons; and some interviewees remembered even the name of the consumer whose testimonial provided the headline: "CUTS IRONING TIME 1/3." Such recall was possible, of course, only because the advertisement contained that information. This is not to assert that all data published in advertising will be recalled; but certainly it cannot be recalled, it cannot make any sales impression if it isn't there! If this is an important consideration in consumer advertising it is all the more crucial when advertising to business men. Since business buying decisions are so often made by teams or committees, an advertiser should make certain

his readers get the facts necessary to enable them to "sell" the other members of their buying team.

#### 5—Is Our Advertising Honest and Believable?

It is impossible to measure exactly how many millions of dollars are wasted annually in advertising that is not believed. But study after study reveals how skeptical are the American people of what they read, hear and view in advertising. And, as the educational level rises, the skepticism will tend to increase.

Pulse, Inc., found that more than 60 percent of those interviewed (3,000 plus) disbelieved the claims of automobile advertisers. Insofar as these findings are valid, a good deal of money is being lost because of disbelief.

A study by the Schwerin Research Corporation and the National Broadcasting Company of the relative effectiveness of television commercials supplies further evidence that believability is a *sine qua non* of efficient advertising.

Belief depends not only on what is said in copy, but on how it is said, and on the total impression given by the whole advertisement. To achieve belief all statements should be true, both in denotation and in connotation. Exaggeration should be either recognizable exhuberance or avoided. The tone of the copy and the appearance of the whole advertisement should be in keeping with the alleged stature of the product. An expensive-looking advertisement will tend to belie its economy and price appeal. On the other hand, consumers will tend to doubt an advertiser's claim he is the biggest producer in his field, or that he sells the best quality, when he uses insufficient space, cheap-looking illustrations and low character copy to say so. Notice how the entire makeup of the newspaper advertisements in behalf of the Cadillac automobile reflect the high qualities assigned the product by the copy.

People act according to what they think (or feel) is so. Perhaps in few other situations can top management directly influence the efficiency of its advertising so markedly as through its insistence upon advertising that is not only honest, but believable. Belief leads to conviction, and to action.

#### How to Decrease "Costs"

So far these criteria have been directed toward increasing the "desire" factor in the consumer value equation: "V = D — C." Following are questions that might be raised about advertisements in an effort to decrease the "costs" of buying.

#### 1—Does Our Advertising Visualize the Idea Directly, Graphically, Simply?

Probably the first "cost" encountered by a consumer or business prospect on seeing or hearing an advertisement is perception and comprehension. Both require effort. As Dr. Claude Robinson (Gallup and Robinson) has put it, "People are mentally lazy. Unless there is visible or anticipated reward, they will not 'rev' up their intellectual motors to comprehend." (Address before the Economic Club, Chicago, January 22, 1953). Therefore, it is almost impossible for an advertisement to be too simple, too clear, too direct in expressing its meaning.

#### Example

A couple of years ago Welch's grapejuice was offered at a "New low price" in celebration of the firm's 80th anniversary. Two advertisements were tested in both the HARTFORD TIMES and in the PROVIDENCE BULLETIN. One advertisement read:

"WE ARE PLAYING HOST TO THE NATION ON OUR 80TH ANNIVERSARY WITH THE GREATEST PRICE REDUCTION IN WELCH'S HISTORY"

The other announced:

"ON OUR 80TH ANNIVERSARY WE'RE OFFERING YOU . . .

WELCH'S GRAPE JUICE

AT A NEW LOW PRICE

The simpler, more direct advertisement proved in both newspapers to have outpulled the other by about 25 percent.

In a test of carcards for Bromo-Seltzer the simpler card was found to be 143 percent more effective. The same principle of simplicity and directness when applied to television commercials was found by NBC and Schwerin to produce similar results in recall scores. For a cigarette ten sequences were introduced during the 60 second period. The responses per 100 viewers was 13. The commercial was then simplified to three elements, and recall jumped to 32.

Other tests have shown similar, favorable differences in the direction of simplicity.

#### Coined Words

This brings up a salient point: words coined to designate exclusive features, e.g. "Hydro-Coil Springs," "Turbo-Flow," and "Muiri" (which only our brand has). The typical consumer doesn't feel under obligation to learn new words. And he won't be moved by them unless the benefits which these symbols represent are perceived immediately. The same may be said for copy which used indirection, and double meanings. Dr. Robinson (see above) has remarked: "Indirection involves mental work; double meanings involve mental work; coined words involve mental work. . . .

"Hence the inverse relationship between mental work and the flow of ideas." Mental effort is a cost. You can cut "costs" by cutting mental effort. Keep it simple. Make it direct. Make it clear,—quickly.

#### 2—Does Our Advertising Help Buyers Overcome the "Cost" of Changing Their Habits?

Habits are useful mechanisms. They enable us to avoid many decisions and endless relearning. Hence consumers are loathe to change habits, including buying habits. Such changes involve "costs." These "costs" may be reduced by helping buyers to change their habits with less effort. Cues to remembering a suggestion to switch brands may be offered; e.g. "look for the green band on the box"; or, as in an instance of a certain orange drink, by telling store customers the drink is with the other canned juices, not with the frozen juices. Another way is to show that the suggested change is not so radical as it first appears. One pancake mix advertiser did not ask the consumers to buy, -he asked them merely to pick up the package at the grocery and read the back label.

Still another way is to offer trial sizes, free samples. This helps overcome old habits, and it helps to reduce the consequences of being wrong.

#### 3—Does Our Advertising Help Protect Consumers Against the Fear of Being Wrong?

Clearly, consumers cannot afford to buy all the products they might fancy. Indeed they could not consume all the products they might buy even if they had the funds. Hence almost every purchase involves an element of doubt as to its wisdom.

"Will this pain reliever actually stop my headache?", "How can I be sure that my friends won't think I'm a spend-thrift (or a cheapskate) if I buy this make vacuum cleaner?", etc. Believable "reason-why" information in support of the emotional appeal helps to remove doubts, fears of possible disappointment, and frees the customer's mind (gives the desire drive freer sway). His conversion is more complete, his conviction is strengthened and so, then, is his motivation to buy.

Consumers often hesitate at the threshhold of a buying decision because of conflicts. These conflicts take several forms: between two physical drives; between what one may desire to do and what he thinks he ought to do; between what he desires to do and what his social class will approve, etc. Hence, the typical person finds it frequently necessary to rationalize his motives,—to find a reason for doing what he wants to do.

#### Example

An interesting series of tested advertisements for the Cummins Business Machines Corporation, Chicago, provides an example. The product is a perforator; it protects against the fraudulent use of invoices. The problem was to design an advertisement that would get around the normal psychological block employers have when considering a decision involving the honesty of their trusted employees,an emotional strain. The several advertisements featured different approaches, such as: 'MR. PRESIDENT: REMOVE OPPORTUNITY BEFORE . . NOT AFTER FRAUD"; "SO YOU CAN'T BE CHEATED?"; "YOU CAN'T ERASE A HOLE"; and, "THE PEN IS MIGHTIER THAN THE PISTOL." The least effective advertisement was rated by the index of 100. The four ads whose headlines are quoted above had rating of 140, 280, 640, and 300, in the same order. Quite a difference!

Usually some accepted proof is needed, to overcome the fear of being wrong. The necessary proof may take several forms: number of satisfied users, testimony of satisfied users, guarantees of quality, promise of money back if not satisfied, copy emphasis on long-time benefits that may accrue from use, clear and complete directions for use, and copy addressed to present users reassuring them of the wisdom of their choice, are examples.

(Continued on page 46)

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# SPONGEX

CELLULAR RUBBER FOR

## **✓ STRIPS**

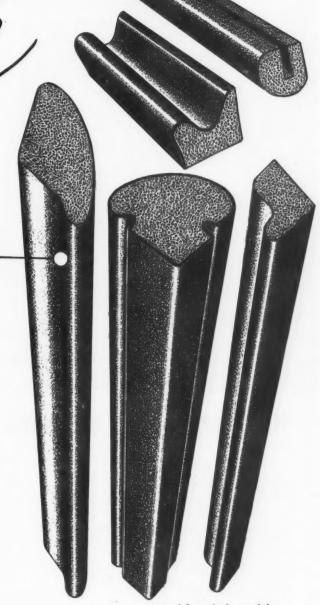
SHEETS TUBING CORD PAD STOCK DIE-CUT SHAPES MOLDED FORMS

Spongex cellular rubber strips can effectively solve many sealing, insulating and cushioning problems.

From molds made to your specifications almost any shape or form of Spongex strips are available with natural skin on all sides. Special shapes can also be furnished in endless forms; such as, squares, oblongs and circles. Some forms may be supplied with an outer cover of mechanical rubber for increased resistance to abrasion, weather and water.

If desired, Spongex strips can be compounded with special qualities; such as resistance to oils, acids, corrosive vapors and extremes of temperature.

Strips are only one of the many forms of Spongex cellular rubber. So the next time you need cellular rubber—check with us—we'll be glad to help.



A few strips in actual size

# **SPONGEX**

# Cellular Materials

THE SPONGE RUBBER PRODUCTS COMPANY, 18 Derby Place, Shelton, Connecticut
In Canada: Canadian Sponge Rubber Products, Ltd., Waterville, Quebec

INDUSTRIA



CELLULAR RUBBER

UPHOLSTERY CUSHIONING



TEXLITE RUBBERIZED HAIR-TEXFOAM

SEINE FLOATS-BOAT FENDERS-ICE BUCKETS



CELLULAR PLASTIC

CARPET CUSHION



SPONGE RUBBER



## No maintenance problems with this instrument!

In spite of all of the development work being done on automatic control instruments, the Bristol Series 500 Air-Operated Controller is still the most dependable and trouble-free — as proved by thousands of installations. And here's why:

It's the simplest to service. Only one adjustment with a ¼ in. wrench calibrates the control system. No other adjustment is needed. Control system can be completely disassembled and, after reassembly (even with replacement parts), can be exactly calibrated by this one simple adjustment.

It's completely reliable. One user states, "I'm amazed at the way this instrument performs day-in and day-out with little or no attention. We call it the work-horse controller in our plant. And our plant men like to use it, because it gives them the precision results they need without having to fuss with it".

Its settings are exactly reproducible. Reset rate, deriv-

ative time, and proportional band adjustments are accurately calibrated and exactly reproducible. You can instantly reproduce established settings without cut and try.

It uses the world-famous Bristol measuring elements. The measuring systems used in Bristol Series 500 Air-Operated Controllers for TEMPERATURE, PRESSURE, FLOW, VACUUM, DRAFT, ABSOLUTE PRESSURE, LIQUID LEVEL, pH, AND HUMID-ITY are the result of 65 years of experience in instrument making and application in practically every industry. Bristol measuring elements are recognized the world over for their accuracy, simplicity, and reliability. There just aren't any better measuring elements made than Bristol's.

For more facts and figures about the Series 500 Air-Operated Controllers, write for free 32-page bulletin A120. The Bristol Company, 163 Bristol Road, Waterbury, Connecticut.

MADE IN CONNECTICUT

BRISTOL

POINTS THE WAY IN
HUMAN-ENGINEERED INSTRUMENTATION

AUTOMATIC CONTROLLING, RECORDING AND TELEMETERING INSTRUMENTS

## **NEWS FORUM**

This department includes a digest of news and comment about Connecticut Industry of interest to management and others desiring to follow industrial news and trends.

AT A MEETING of the board of directors of The Connecticut Development Credit Corporation held recently, Everett V. Dana, president of the Central National Bank and Trust Co. of Middletown, was elected a director to fill the unexpired term of E. Kenneth Hadden. Mr. Hadden, former head of a New London bank, resigned from the board due to his inability to serve after accepting a position as president of a new bank in California.

Another director, Milton H. Glover, senior vice president of The Hartford National Bank & Trust Co., was elected to replace Mr. Hadden as a member of the executive committee.



THE FIRST low-cost, transparent strippable coating of the water-white type has recently been developed by the Bischoff Chemical Corporation, Ivoryton. It is said to protect surfaces and edges of metal tools, parts and finished products from corrosion and abrasion during storage, handling and shipping. It is a crystal clear, plastic coating known as Thermo-Cote K.

#### The Cover



THIS MONTH'S front cover photo shows a workman operating a drop forging hammer at Consolidated Industries plant in Cheshire, Conn.

Thermo-Cote K is a butyrate base coating that permits low temperature application at 300° F., according to D. R. Welter, the company's research chief. Supplied in convenient small blocks, it is melted in a thermostatically controlled melt tank and brought to the proper dipping temperature.

## "Federal" Wiping Cloths

For Every Cleaning and Polishing Job in Industry

Washed and Sterilized in Our Own Laundry

Wiping Towel Rental Service

Cheese Cloths New and Washed

TEL. NEW HAVEN LOcust 2-9929



MEMBER

MANUFACTURERS

ASSOCIATION OF

CONNECTICUT, INC.

## FEDERAL TEXTILE CORPORATION

EAST AND WATER STREETS NEW HAVEN, CONNECTICUT

# "Packaged" Answer to a Wide Range of Steam Needs

TYPE H, WATER-TUBE . .

Includes burner, forced-draft fan, feed water regulator, soot blower, valves, refractory, insulation and controls. Shipped complete — ready to operate as soon as service connections are made.

Advantages: Easy Installation...
Small Space... Simple To Operate
... Efficiency and Economy ...
Burns Oil or Gas.

Available in standard sizes for capacities ranging from 8,000 to 30,000 lbs. of steam per hour. Write for complete catalog.

BOILERS BY BIGELOW-Water Tube Boilers-Bent Tube Types \* Two-Pass Boilers \* Moricental Return Tubular Boilers \* Scotch Type Boilers \* Electric Steam Generators

THE BIGELOW COMPANY, New Haven 3, Co Established 1833

Representatives in principal cities.

BI-14



### SPEED REDUCERS



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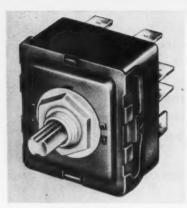
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A NEW SERIES of rotary switches, small but with unusually high current carrying capacities for their size and also designed for optional extension of the spindle through the back of the base to permit operation of dampers or gears and the ganging of electrical controls, has been developed by The Hart Manufacturing Company, Hartford.

Designated "Diamond H" Series 390 Switches, the new devices are designed for incorporation in air conditioning equipment, fans, unit heaters, appliances and similar products.



NOW BEING MARKETED by Stanley Electric Tools, New Britain, is a new powerfully built short drill designed to get into tight spots. Contractors, electricians, plumbers and repairmen working in hard-to-get-at places, should find the 123, with ½" capacity in steel, 13%" in wood, answers the requirements for a short, powerful drill.

The 123 drill was the tool used by Raymond D. Parker, construction superintendent of Mills Judy Builders, Cincinnati, Ohio, when he won first prize in Kwikset's lock installation contest held during the NAHB Convention in Chicago this year.

\* \* \*

THE APPOINTMENT of Jacob J. Jaeger to the newly created post of chief engineer, machinery engineering department of Pratt & Whitney, Division Niles-Bement-Pond Co., West Hartford, has recently been announced by A. H. d'Arcambal, president and general manager.

Having received his B.S. degree from Drexel Institute in 1933, and his M.S. in 1934 from Massachusetts Institute of Technology, Mr. Jaeger began his caIdeas Survey



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reer as a research assistant for Massachusetts Institute of Technology in 1934. In 1940 he became associated with Pratt & Whitney as a research engineer and was made assistant manager of machinery engineering in 1951.



AN ANNOUNCEMENT has been made by James A. Gould, president of Pratt, Read and Company, Inc., Ivoryton, that F. Kelso Davis has been appointed vice president and sales manager of the company.

Mr. Davis is a veteran of World War II, having served in the United States Navy from 1942 to 1946 with the rank of Lt. Comdr. He joined the Ivoryton firm, which is America's oldest and largest piano supply house, immediately upon his release from the Navy.



ASSOCIATED SPRING CORPORATION has recently announced promotions at Wallace Barnes Co. Division, Bristol. Jefferson S. Gamble has been appointed sales manager of the corporation's Bristol divisions, which include Wallace Barnes Co., Dunbar Brothers Co., F. N. Manross & Sons Co., and Wallace Barnes Steel Division. Mr. Gamble succeeds Harold B. Reid, retired. He has recently been serving as assistant sales manager of the Bristol divisions.

Joseph T. Domingue succeeds Mr. Gamble as assistant sales manager in charge of spring sales. After receiving his education at Amherst College, Mr. Domingue joined Wallace Barnes Company in 1929.

Upon his retirement on July 1, Mr. Reid had completed 35 years of service to the day. Following his graduation in 1910 from Yale University, Mr. Reid spent a brief period in the newspaper field, and in 1919 entered the purchasing department of the Wallace Barnes Co. In 1931 he was appointed sales manager of all the Bristol Divisions, including the Wallace Barnes Steel Mill. In late years he has also served as chairman of the sales committee of the corporation, and as a director and vice president of Associated Spring Corporation, and as vice president of the Spring Manufacturers Association.



THE NEWTON COMPANY of Manchester has announced that it has purchased the machinery and equipment of the American Tool Works of Hartford, Inc.



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BRIDGEPORT 3, CONNECTICUT

Officials of the Newton company said that the majority of American Tool's 40 employees will be employed at the Manchester concern.

The Newton Company was formed in Middletown in 1947 and is engaged in the electronics industry. American Tool has been in business since 1918 and in recent years has specialized in the manufacture of small tools and production parts for the aircraft industry.

\* \* \*

A \$1,000,000 plant expansion project has recently been announced by C. H. Dexter & Sons, Inc., paper manufacturer, of Windsor Locks. It will be the first major addition to the plant since the late 1920's.

David L. Coffin, vice president and assistant general manager of the firm, said the \$1,000,000 would be spent in approximately equal parts for building and equipment. A 200-foot long machine will be purchased for the manufacture of fine filter papers and a two-story 240 by 87 foot addition will be built to house it.

WALLACE E. CAMPBELL, vice president of the Fuller Brush Co., Hartford, was re-elected president of the Connecticut Chamber of Commerce at its 55th annual meeting held recently.

Other officers named were: Vice president, J. Doyle DeWitt, president of the Travelers Insurance Co., and Gibbs Lyons, president of the First Stamford National Bank and Trust Co.; treasurer, Calvin C. Bolles, vice president of the Capitol Office of the Phoenix State Bank and Trust Co., and executive vice president and secretary, William B. Cafky.

\* \* \*

MEYER BOTWINIK, of New Haven, an executive of Botwinik Brothers, died in St. Vincent's Hospital, New York, recently.

Mr. Botwinik was vice president of Botwinik Brothers, heavy machine tool rebuilders, and was also treasurer of the Pyrene Corp., Newark, New Jersey. He was also a member of the board of directors of the Plume and Atwood Manufacturing Co. of Waterbury.



NORMAN L. MARKEL, personnel director for the Gray Manufacturing Company, Hartford, has been appointed by H. C. McClellan, president of the National Association of Manufacturers to serve on the NAM Advisory Committee for the Physically Handicapped.

Mr. Markel, a specialist in the field of placement for the physically handicapped, was invited to serve on the committee to work with a group of industrialists in development of a management guide on interview and proper placement of physically handicapped people.



ELECTION of two vice presidents at the Hart Manufacturing Co., Hartford, has been announced by George H. Hart, president. They are John F. Dreier, vice president in charge of sales and J. Henry Anthony, vice president in charge of manufacturing.

Mr. Dreier, sales manager for the past six years, joined the company in 1947 as assistant sales manager. He had previously been assistant to the general manager of Chandler-Evans Division, Niles - Bement - Pond Company, and prior to that had served on a special industrial assignment with the Manufacturers Association of Connecticut.

Mr. Anthony joined Hart in 1953 as works manager. He was formerly with Whitney Chain Company, where he was general superintendent in charge of industrial and tool engineering.



THE NEW BRANCH plant of Hamilton Standard in Broad Brook is now in partial operation assembling electronic parts into fuel control parts.

Hamilton Standard, a division of United Aircraft Corporation, bought the plant of the Broad Brook Company in February. Hamilton expects to employ about 300 people there before the end of this year.



A TEN-MONTHS STRIKE against the Hat Corporation of America in Norwalk, was officially ended recently when the company directors approved a settlement formula.

The formula provides for a threeyear contract and gives the workers assurance that Norwalk will remain the major center of the company's operations and employment. The union had attempted to force the company, America's second largest men's hat producer, to agree never to open new plants outside the city of Norwalk. The agreement provides, however, that management can do anything it wants with its plants.



PIONEER PARACHUTE CO. of Manchester will open a small plant in Canada to take care of "prospective" orders from the Canadian government.

President Lyman H. Ford said the new plant, probably opening this summer, will have no effect on Manchester operations. Parachutes now shipped to Canada are subject to an import duty of about 25 per cent.



JOHN B. MADIGAN has been appointed assistant treasurer of the Hartford Electric Light Co., it has been announced by Richard B. Curran, financial vice president.

A graduate of Weaver High School and Yale University, Mr. Madigan joined the company in 1935. He is a certified public accountant and has been assistant to the treasurer for the past four years. He is a member of the American Institute of Accountants.

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SHERMAN R. KNAPP, president of the Connecticut Light and Power Company, is shown as he accepted a citation honoring C. L. & P. as one of five electric utility companies in the United States which have been nominated for the Charles A. Coffin Award. The presentation was made by Frank A. Faron, right, manager, New York district, apparatus sales division of the General Electric Company, which established the award. H. A. Davis, sales manager of the division for the New York district is on the left.

THE U. S. DEPARTMENT OF COMMERCE Field Service, has recently published a single sheet indicating some of the services available through its Field Offices, both in domestic and foreign trade.

In the field of domestic commerce specialized information and assistance are provided in all phases of marketing and distribution utilizing a wealth of data compiled and published by the several units of the Department as well as other Government and private agencies. In this field the Department offers information and service on a wide range of census data; basic records of nation's income and products; marketing and distribution and gov-

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In the international trade field facilities are available through which prompt and dependable aid is provided on the development and maintenance of export and import trade. These services range from assistance to a new exporter in selecting prospects in specific markets for the sale of his goods to assistance in clearing shipments from United States ports held up because of lack of a valid export license or for other reasons.

Of increasing interest at the present time, according to Paul G. Carney, Boston Field Office Manager, is the Department's Office of Technical Services, which is the basic source from which information on technical research performed by Federal agencies and other groups, and of a non-confidential nature, may be procured by the public. The Office of Technical Services is able to provide such nonrestricted data, not only to business organizations, but to the general public, in order that business and industry may have a maximum use of the information.

The Office of Technical Services serves as a clearing house for the collection, editing, publishing, and dissemination of scientific and technical data for the purpose of promoting economical expansion and development. As a means of publicizing its services, it publishes and distributes a monthly newsletter entitled "Technical Reports," and in cooperation with the Foreign Operations Administration, it publishes a "Technical Digest Service," which constitutes a clipping service recording the latest articles on industrial technology for all conceivable fields.



HERMAN A. PAPENFOTH, who joined the Trumbull Electric Company in 1917 and rose through various executive positions to manager of finance of General Electric's Trumbull Components Department, has recently resigned that post.

A native of Stamford, Mr. Papenfoth originally joined Trumbull's cost department. After overseas service in World War I he returned to the company and worked in the accounting, statistical and financial units, becoming chief accountant and, in 1944, secretary-treasurer of the company.

He was named manager-finance

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when the General Electric Company took over control of the plant, and was assigned to the Trumbull Components Department in July of last year, when a reorganization brought its division into two departments.

Mr. Papenfoth has also held office in several professional organizations. A member of the National Association of Cost Accountants, he served as president of its Hartford chapter and in 1951 was named to the national presidency. He is also past president of the

Institute of America.

#### \* \* \*

Hartford Chapter of the Controllers

PRATT & WHITNEY, Division Niles-Bement-Pond Company, West Hartford, has announced the appointment of Stanley W. Lovejoy to the position of manager, Cutting Tool Research. His duties will include basic research, development and testing of products manufactured in the company's Cutting Tool Division.

#### \* \* \*

THE FIRST AWARDS in the Scholarship Program of The Bristol Brass Foundation were recently announced by Horace W. Staples, secretary of the Foundation.

Named were Elaine B. Brzezenski and Mary T. Critchley, both graduates of Bristol High School. Miss Brzezenski was granted a scholarship of \$1,000 for the school year 1954-1955, and Miss Critchley was awarded a scholarship of \$750 for the same period.

The scholarship program is open to qualified sons and daughters, brothers and sisters of Bristol Brass people and other qualified young people of the community.

#### \* \* \*

ENTHONE, INC., New Haven, has announced a change in the name of one of its standard products. "Enthol" is the new name of the product formerly sold as Enthone Compound 42.

This product is an acidic solvent type cleaner utilized for many years by many concerns for the combined cleaning and phosphating of iron, steel, zinc and aluminum surfaces prior to application of organic finishing materials.

#### + + +

ITS FAITH IN New England as an important industrial center was evidenced recently by the U. S. Rubber Co. in the breaking of ground at Naugatuck for a new, modern three-story warehouse and office building.

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The new building, planned for occupancy in the spring of 1955, will be 425 feet long and 200 feet wide, with 281,000 square feet of floor space. It will be erected next to U. S. Rubber's

large footwear plant.

A large percentage of the space will be devoted to warehousing the company's Keds and Kedettes shoes, Gaytees boots, U. S. Royal footwear, sponge rubber rug underlays and other products manufactured in the Naugatuck footwear plant. In addition, the building will house a hospital and cafeteria with the most modern, up-to-date facilities, as well as offices for sales production coordination sales service, sales accounting and industrial and public relations personnel.



THE SALE of assets, trademarks and inventory of the Gardiner Hall Junior Company, Willington, to the Standard Thread Company of New York, has been announced by William R. L. McBee, treasurer of the firm.

According to Mr. McBee, the company will continue as before, retaining ownership of factory property and 39 company houses in the community.



BREAKING GROUND for U. S. Rubber's warehouse and office building at Naugatuck. Watching W. E. Bittle, plant manager scoop up the first shovel of dirt, are (left to right) Carl R. Toothaker, plant engineer; C. J. Noonan, vice president; William Nobel, Jr., president and treasurer of W. J. Megin, Inc.; Rudolph Hennick, publisher of Naugatuck News; and Charles Clark, warden of Naugatuck.

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THE DEFENSE DEPARTMENT has recently revealed plans for the construction of a \$5,750,000 Air Force research installation in Hartford.

The department's announcement said that the money, if provided by Congress, would be used for "research, development and testing facilities and land acquisition."

A NEW MACHINE, designated the Model 102 Electronic Airfoil Milling Machine and manufactured by the New England Machine and Tool Company of Berlin, Conn., has been announced by Pratt & Whitney, Division Niles-Bement-Pond Co., West Hartford, who will handle complete sales engineering and service of the machine.

Two completely new developments a noncontacting tracer control, and a fair-curve interpolating system-are combined in this new machine for generating original three-dimensionally contoured shapes from a series of simple cross-sectional templates. The machine, although just now being offered to industry, has been thoroughly developed and proved during a period of six years in actual job-shop manufacturing of original airfoil masters, master cams for production airfoil milling and grinding machines, metal patterns for various blade casting processes, and general experimental and prototype machining of airfoil shapes.

W. HAMILTON WALTER, until recently assistant chief of the Mutual Security Agency in Great Britain, has been named sales manager of Electric Regulator Corporation, Norwalk, it has been announced by Arthur M. Cohen, president of the company.

Before joining the Mutual Security Agency in 1950 Mr. Walter had overall responsibility as coordinator of sales for Raytheon Manufacturing Company, Waltham, Mass. A former vice president in charge of sales for the North Electric Manufacturing Company of Galion, Ohio, he was for 18 years a top sales, staff, and line executive of the Automatic Electric Company of Chicago and its affiliates, including Associated Telephone and Telegraph Company.

Telegraph Company.

In the MSA post, he was in charge of production supporting activities and off-shore procurement in the Anglo-American effort to increase British industrial output following the end of the war.

**GREEN** is the colorful keynote of two new portable typewriters introduced by Underwood Corporation in response to teen-age demand for advanced design machines with a plus factor—eye appeal.

Color styled to win favor with the nation's vast high school and college student population, the new Underwood Deluxe is a two-toned, non-glare Ivy green. A second entirely new model, the Universal, is a darker Brewster green. According to W. W. Steiner, manager of the company's dealer division, the color selection was based on a national survey of teen-age preferences.





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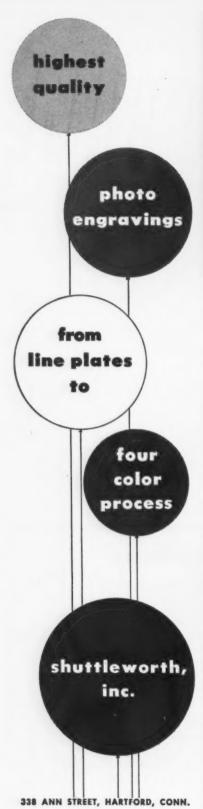
Personalized Service, and Uniform Quality, have been MUSTS with Miller for more than 100 years of successful metal manufacturing. Backed by a thorough knowledge of metal fabrication problems—the use of only highest grade raw materials—quality control of all processing operations—and careful checking with the most modern testing facilities—Miller Phosphor Bronze and Trembronze have brought praise from users for their high tensile strength, lasting flexibility and uniformity.

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C. R. BROWN, director of United Aircraft Corporation's cafeterias, delivers honor award plaque won by Hamilton Standard in recent food service contest to J. P. Sullivan, personnel manager of Hamilton Standard, center, and Harold C. Lethbridge, regional manager of Hamilton Standard cafeterias.

THE BEST INDUSTRIAL CAFE-TERIA in New England is operated at Hamilton Standard, division of United Aircraft Corporation, Windsor Locks, according to the results of a food service contest held in connection with the 35th annual convention of the National Restaurant Association in Chicago recently.

In the contest, the Hamilton Standard cafeteria won an Honor Award for "highest standards of sanitation and for superlative achievement in storing, handling, preparing and serving food."

A DIFFERENT TYPE of industrial booklet has been prepared by Rogers Corporation, Goodyear.

In the booklet entitled "Here's Rogers Again," the company's products and services as well as its general philosophy, are discussed under such chapter headings as "Totem poles are not good organization charts," "What good is a movie magazine," "Sales man vs. sales manager," "Whoopee expense accounts," "How presidents ruin men," and "One way to write a union agreement."



IAMES N. GREENE, of Newtown, a vice president of the Frank H. Lee Hat Co., who resigned recently after 30 years with the company, was honored by more than 100 department heads, office workers and members of the sales force and the New York office of the firm, at a testimonial dinner recently.



JOSEPH H. ROBERTS, SR., chairman of the board of Edgcomb Steel of New England, Inc., has been awarded the first Milford Citizen Distinguished Citizenship Award.

Alfred Stanford, publisher of the Citizen, announced the establishment of these awards, which the newspaper will present from time to time for unusual achievement in community service and distinguished citizenship by Milford persons.

Mr. Roberts was named "for his strong leadership, wise counsel and unselfish devotion to the needs of his community in guiding into being the Milford Chamber of Commerce as its first temporary chairman. . . . '



BURTON G. TREMAINE, JR., executive vice president, The Miller Company, Meriden, has recently announced several promotions in the company's Illuminating Division.

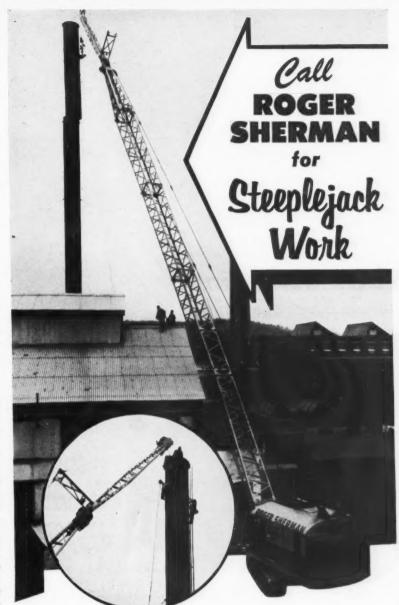
Daniel F. Donahue, former Meriden resident, and more recently superintendent of the Utica, Ohio plant, has been appointed to the newly designated position of manager of manufacturing of the Illuminating Division, with headquarters in Utica. Walter F. Summers, formerly Meriden factory superintendent has become production manager at the Utica plant to strengthen that organization. Paul F. Staples, assistant superintendent of the Utica plant has been named plant superintendent there.

Philip K. Bennett has been appointed superintendent of Meriden's newly integrated incandescent industrial plant. Richard G. Ragone has been placed in charge of the Meriden tool room, and Henry F. Dillemuth has been named supervisor of the company's newly formed Meriden custom

fixture department.



CHARLES T. JORDAN, vice president of the Charles Parker Company, Meriden, was elected second vice president of the American Supply and Ma-



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Springfield 6-4177 Albany, N. Y. 3-3101 chinery Manufacturers' Association at the convention held at the Waldorf-Astoria Hotel, New York, recently.

The American Supply & Machinery Manufacturers Association consists of manufacturers of tools, machinery and supplies used in industrial plants throughout the world.

EMERY B. DANZELL, vice president in charge of manufacturing at R. Wallace & Sons, Wallingford, and a member of the Research Institute of America's Associate Member Division. has won the institute's annual award for merit for his "contribution to executive skills" in 1953.

His winning entry was entitled "Supervisory Education in Management Principles." The presentation of the bronze medallion was made by William C. Byrnes, Jr., of the institute's executive staff.

In addition to the award to Danzell, a company citation has been presented to H. Stuart Stone, president of R. Wallace, in recognition of the fact that "companies where ideas are produced make the most effective contribution of all to the general well-being of business."

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WENTWORTH SMITH, general sales manager of Neptune Meter Company, manufacturers of water meters, has been named vice president in charge of sales, it has been announced.

Mr. Smith joined Neptune in 1948 as an executive assistant to the general sales manager after two years in the sales division of Safety Car Heating and Lighting Company. He was made assistant general sales manager in 1951 and general sales manager a year later.



ROBERT R. RENNER has recently joined the Casco Products Corporation, Bridgeport, as an administrative assistant to Lawrence E. Fenn, executive vice president.

The company also disclosed that William F. Thompson of Fairfield has been named sales manager of the Heating Pad division of the appliance sales division.

EMPLOYEES of the Majestic Silver Co., New Haven, are now gardeners in their spare time, on company owned property. A substantial portion of the empty acreage surrounding the factory property has been turned over to employees by officials of the company for cultivation as private gardens.

It was the idea of the management, according to David A. Baker, vice president, that the land should be put to use. The company had the land plowed and employees selected their sites and planted their gardens. About 50% of the company's personnel have taken advantage of the company's offer.

LEWIS M. LUCAS has succeeded his uncle, Frank B. Lucas as president of J. L. Lucas & Son., Inc., Bridgeport. Mr. Lucas will remain a member of the Board of Directors of the firm.

The new president is the son of the late Chester L. Lucas, a vice president of the company, who died in 1925.

Frank B. Lucas, son of the founder of the machine tool manufacturing and rebuilding company, has been active in the company more than 40 years. He assumed the presidency in 1943 upon the retirement of his father.



**OLIN INDUSTRIES, INC.** has established a physical chemistry department in its general research organization at New Haven.

D. DeB. Darwent has been appointed manager and chief of the kinetics section, Anderson Pace, Jr. has been named chief of the physical properties section, and J. P. Manion has been made a group leader in the kinetics section. These men have all been with the general research organization at New Haven.



ALDEN ROGERS, president of the Staminite Corporation, paint and varnish manufacturing specialists since 1931, has announced the company's



S. W. FARNSWORTH (right) board chairman of The Torrington Manufacturing Co., escorts William S. Brower, Jr., Torrington, 1954 winner of the Torrington firm's annual \$700 Worcester Polytechnic Institute scholarship, on a tour of the plant. A second 1954 scholarship has been awarded to Donald G. Craig, last year's winner, to aid him in his sophomore year at Worcester.

new policy allowing residents of the New Haven area to buy direct from the Staminite factory.

The significant feature of the plan centers on the fact that this 23-year-old company has set up a factory sales room

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where local customers can make small purchases at the same prices quoted the big distributors.

"Many people in New Haven have never heard of Staminite because our business has developed largely through distributors in other sections of the country," reported Mr. Rogers, "but they are rapidly learning that Staminite offers quality interior and exterior paints, varnishes, waxes and cleaners for both home and industrial use."

### \* \* \*

WALTER H. WHEELER, JR., president of Pitney-Bowes, Inc., has been elected an honorary fellow of the American Institute of Management. He is among 74 leaders of business and education so honored this year, according to the annual review of the institute.

Nominations are made each year by the Fellowship Committee of the institute in recognition of outstanding contributions to the advancement of the profession of management.

### \* \* \*

A POTHECARIES HALL CO., INC., Waterbury, has announced the election of Frederic R. Kellogg, great grandson of its founder, as president, succeeding Evan H. Jones, who has retired from active management.

At the same time the company announced the election of Edward R. Jones, treasurer, to succeed Mr. Kellogg as vice president. William H. Stahl, sales manager of the company's fertilizer division, and an employee of the company since 1912, succeeds Mr. Kellogg as assistant secretary.

### \* \* \*

A "CONFERENCE ON THE IMPORTANCE OF INVENTIONS AND PATENTS" will be held on September 30 in the Ballroom of the Hotel Statler, Hartford, under the sponsorship of the Connecticut Technical Council, Connecticut Patent Law Association, Manufacturers Association of Connecticut, The Hartford County Manufacturers Association, the National Association of Manufacturers, and other local organizations throughout the state.

The conference, which has been planned to interest top management as well as technical people, will start with a luncheon at 12:15 P.M. with a prominent, nationally known research man addressing the group on the topic of "Research, Invention and the Atomic Future."

During the afternoon there will be three brief talks of about 20 minutes each, after which there will be a question and answer or discussion period. The topics of these discussions are: "The Nature of the Patent Right"; "Functions of the Patent System" by Robert C. Watson, Commissioner of U. S. Patents; and "A Case History of an Invention."

The speaker for the luncheon session and those who will talk on two of the afternoon topics will be of nationally known stature, with their names to be announced along with reservation instructions in the September issue of CONNECTICUT INDUSTRY.

### Metal Rebirth for the Jet Age at Consolidated Industries, Inc.

(Continued from page 8)

ers and two new Cincinnati Hydro-Tel Tracer-Controlled Milling Machines . . . and these represent only a small portion of the die sinking equipment that will eventually be installed.

One of the largest defense bombers in the world—over 175 tons without its bomb load—is Boeing's new B-52. And contributing in no small measure to her flying ability are aluminum forgings by Con-Sol. Among many other famous names in the aircraft field that rely on Consolidated for precision forgings are: Pratt & Whitney, Douglas, General Electric, McDonnell, Grumman, Sikorsky, Republic, Fairchild, Lockheed, Cessna, Chance-Vought, and Consolidated-Vultee.

### **Well Drillers and Power Rollers**

Although primarily known for its contributions to the aviation industry, Consolidated is also well-known for two other product lines. Farmers and ranchers in the 48 states and in 61 foreign countries know and use Con-Sol Well Drillers, while many contractors and grounds maintenance people are more familiar with Con-Sol in connection with power rollers. Consolidated's Well Drillers are sold direct to the consumer. This enables a farmer, rancher, or suburban home owner to drill his own deep-hole well for less cost than he would have to pay a contractor to do the job.

On the other hand, Con-Sol Power Rollers are usually purchased by contractors. These machines are employed in rolling asphalt or other "hot-top"

materials on sidewalks and driveways, and are also widely used for rolling lawns in cemeteries, golf courses, parks, and stadiums.

Today, the direction of Consolidated Industries, Inc. is in the capable hands of company president, Thomas Creaven. Recently Mr. Creaven stated: "Much of the credit for the progress and success of our company must go to the loyal group of Consolidated employees—folks who live in West Chesh-

ire and neighboring communities—who give so generously of their skill and energies to continually increase the scope of Consolidated's service to our customers and our country. Here at Consolidated Industries, we look back on our achievements of the past eight years with pride, and we look forward with confidence to a future we feel sure will offer us even greater opportunities to contribute importantly to America's progress and security."

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[39]



### **BUSINESS TIPS**

from

School of Business Administration University of Connecticut

### The Best Line

By LAURA B. SAEGER, Assistant Professor of Industrial Administration

"TF you want really good communication in your company, you'll want a union." So admonished a union president at a recent meeting of personnel managers. At this statement, some in the audience bristled noticeably; others took the pronouncement casually; and a small minority smiled approvingly. These varied reactions indicated rather clearly the existence of disagreement and one can only assume that the means, rather than the end, was in question. . . .

By definition, communication means "to share in, to give to another, or the interchange of thoughts, opinions, or information." This definition, then, clearly designates that as a business tool. communication is not a monologue in which management reels off information, issues ultimatums, or makes pronouncements regarding the activities of both labor and management. Rather, we are here provided with a means for exchanging thoughts and opinions, receiving and discussing new ideas and suggestions, and even negotiating and bargaining over controversial matters. This means, of course, that management and its representatives and labor and its representatives employ written and oral forms of expression for working together more effectively. . . .

In its enthusiasm to adhere to the principles of scientific management in recent years management has gone "all out" to insure its attempts to keep employees informed. Company magazines and house organs have come into their own and management's philosophies, company policies, operational practices and organization planning are presented colorfully and in great detail. Executives want their employees to know what is going on. To supplement these media the dust-covered bulletin

board of yesteryear has gained new respect, and information ranging from company policies to the annual picnic is posted. Eye-catching cartoons and pictures, as well as brightly printed posters, have helped management bring its story to employees.

As if these attempts were not enough,

the larger companies, especially, began mailing letters and other literature to the employee's home, operating on the theory that during leisure hours this material would be more carefully read and considered and also, the employee's family would be advised of company matters to encourage still further the "one big family" notion.

Recognizing also that written words can be easily misinterpreted and that many people will never make the effort to read what is presented to them, many companies carry their messages personally and directly through conferences and lecture meetings.

All of these forms of communication. it will be noted, are directed and conducted by management and without the assistance of the union. The question then follows, "Are these devices really affording good communication, or will we still want a union?'

The arguments usually advanced by organized labor in which their part in communication is emphasized are fairly well known. Union members they claim

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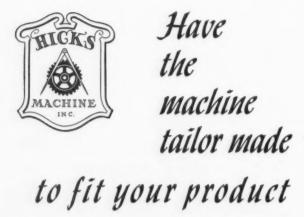
prefer to talk with one of their own kind, the union steward, who, in turn, carries the message faithfully to the supervisor or directly to the grievance meeting. It goes without saying that in most instances this procedure is effective; pressures are brought to bear upon management and the aggrieved employee gets attention. Contrast this with the all-too-familiar pattern in which the

grievance is shrugged off by the supervisor because he is too busy, too uninterested or too unsympathetic to take action. Little wonder that the union looks like an effective channel for delivering messages to management! The union steward has a full-time responsibility to the union and its membership, namely that of being a sounding board and a voice to the wants and com-

plaints of his constituents. This is also, no doubt, good reason for the fact that stewards and union officers are so well-informed on the feelings and opinions of employees. All in all, it becomes increasingly evident that the claim of the union is one to be reckoned with and that at least this is the means for a real "giving of information." The primary difficulty seems to lie in the fact that this is again a *one-way* street through which information can and will be directed to best serve the immediate goals of the organized group.

In theory, communication requires expression of an idea by one and reception of the idea by another. Whenever one presents his thoughts or opinions, he assumes responsibility for making himself understood. Orders are ordinarily followed carefully and conscientiously when they are thorough and clear. However, the reception of ideas, -changes in plans, new company policies, the economic system, procedures in collective bargaining, and the likecalls for something more. Response to these things is predicated on respect, understanding and mutual confidence between the giver and receiver. There is nothing which makes one more willing to listen and believe than to hear from one who is loved, revered and respected.

Within every business operation there is a ready-made tool for adequate communication. The line organization, and particularly the first-line supervisor, is in an enviable position to be the best possible channel for interchanging ideas and opinions. The line organization was created to designate those who are to give orders and those to whom orders are given. This responsibility alone requires written and oral communication, if directions are to be followed: the line organization is dependent upon communication to convert its plans to action. Note too that here is a device, inherent in organization, which may be employed to convey information to employees at no extra cost. Line supervisors are in daily contact with their subordinates which means that they, more than anyone else, can learn what employees are thinking, what they want, and how they can help to improve the company. In addition, presumably, this representative of management will be able to bring the company's problems, philosophies and plans to all employees of the business. There is no one else and no other medium which can so capably handle the two-way exchange in modern busi-



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ness operations. There is no one else who has contacts with both management and labor regularly, day in and day out, and there is no other device which can be superimposed upon an organization structure which will insure mutual expression. The supervisor is the organization and making this structure operative is dependent upon the issuance and reception of orders and ideas.

The initial charge of the union president, previously cited, was that the union will bring good communication. The assumption is that good communication is two-way; that it consists of careful expression and sympathetic understanding; and that it is free from encumbrances which distort or eliminate divergent opinions or points of view. Whether or not the union can meet these stipulations is most certainly questionable. At best, the representatives of organized labor are prepared to present only the thoughts of employees, specifically union members, and the views and plans of the union. What then of the plans and philosophies of the directors of the business undertak-

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ing? At this point the charge seems to weaken. The criteria for good communication have not been satisfied until the management of the business has also spoken freely. This the union cannot do!

Emphasis on this principle of scientific management is based on the fact that good communication will bring workers and management into more harmonious relationships, thus developing a more profitable and a more satisfying experience for both. An effective tool or technique is one which reaches this goal. The real need is for someone or something which simultaneously can represent and understand both parties. This instrument is the line supervisor.

He knows what the philosophy of his company is and what the policies are that will enable him to play his part in reaching the goal. He knows the plans, short and long range, of top management before they are released to the press or the grapevine. In short, as a good management representative, he has all of the information he needs to speak well and authoritatively for his company. Above all, he feels secure in his position because he is armed with ideas and opinions and he knows that his subordinates will listen to him because he has the right to speak for management.

On the other hand, the sympathetic line supersisor listens well and carefully to his subordinates. He knows what people are thinking because they tell him, and they tell him because they know that he will accept suggestions, that he will respect their opinions, and that he can and will consider their criticisms and complaints. Employees know, too, that the line supervisor is in close contact with other levels in the organization and that their words in communication will be well handled.

In the final analysis, there is no additional cost incurred when a supervisor performs this phase of his job well, and there is no other device in business today which can handle communications as thoroughly and as personally as a supervisor who is prepared for this challenge. Bar non, the supervisor is the best line.





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### **ACCOUNTING HINTS**

Contributed by the Hartford Chapter National Association of Cost Accountants to stimulate the use of better accounting techniques in industry.

### **Estimating The Cost of New Products**

Rew concerns find themselves in the enviable position of enjoying a continuing market for the very profitable item or group of items which it has been producing over a long period. This is, of course, possible as long as it keeps abreast or ahead of competition as to methods of manufacture, marketing, etc. However, even if this condition should exist, new products are, as a rule, necessary for continued success.

Many decisions must be made by management before such a new product can be put into production. Among them is the element of potential profit to be derived from this new sales outlet. At this early stage great importance must be placed upon the preparation of the cost estimate.

This task of the cost estimator is greatly simplified if a standard cost system is in use. The detail breakdown of material classifications, labor centers or departments, and overhead rates are such that application to the new product becomes an orderly procedure. The cost estimator, in order to do a dependable job, must depend heavily upon the assistance of those in the engineering and production sections.

The first and probably most important step is to obtain from the engineering department (or best available source) a "bill of material." This should show the direct material requirements for parts to be fabricated within the plant, as well as all information needed to obtain quotations from suppliers. With this information available, quantity requirements can be computed and standard prices applied. Great care should be taken in the choice of material used, size of stock, layout of stampings, sequence of operations, etc., with maximum cost savings in mind.

The elimination or combination of operations may well be the difference between a fair profit and a very fine profit item. A certain amount of the original material used is usually salvaged and sold for scrap. An effort should be made to credit this amount to the material estimate, particularly where this may occur in any volume.

The direct labor operations must be listed along with information as to expected hourly production. This can best be acquired through cooperation between the engineering department and department foremen. The cost esti-mator must "sell" himself to the production men in order to be able to get the desired assistance. It cannot be his responsibility to prepare complete data as to operations. This must be supplied to him by those in the production division who are best qualified. It is then a relatively simple matter to price these direct labor operations on the basis of current man hour or machine hour rates. Where operations are very similar to work being currently performed, identical labor costs may be used. On those operations which are different, the cost estimator must use his best judgment, guided by the best available information, in estimating the labor costs. It is plain to see that current standards are of extreme value to the cost estimator.

Overhead or indirect costs are difficult to obtain and to allocate to a particular product. Again, standard costs are of great assistance and value for this purpose. Having already established the labor operation costs, the current departmental (or plant wide) rates are applied to the direct labor dollars or hours as the case may be. A great deal of time and effort has already been expended to establish these rates. Much has been said on this subject in previous articles and

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many books have been written on this subject alone.

It must be remembered that this estimate is being prepared for the purpose of estimating the cost of a new product. Setting the standard cost when this product becomes a reality calls for a much more exacting study. If this estimate is to be used for setting a possible or actual selling price, it becomes very necessary to correct these costs by the actual-to-standard ratio. Such adjustment must be made using a recent period of the same level of activity.

Just a word on setting selling prices. There is some or even great danger in setting selling prices on the basis of estimated standards. This estimate is only what should be spent in the production of an article. Selling prices are often dependent upon what the market will bear, regardless of cost to produce.

### A Guide to Management Appraisal of Its Advertising

(Continued from page 20)

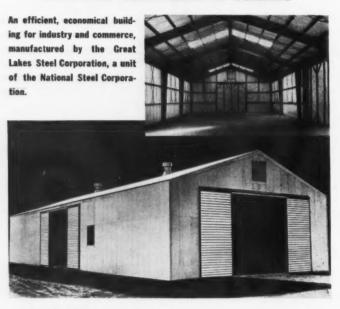
A split-run test of two advertisements for agents to sell Presto fire extinguishers door-to-door will illustrate. Merlite Industries tested an advertisement headlined "'MY SELLING TIME ACTU-ALLY SHOWS ME A PROFIT OF \$20 to \$25 AN HOUR' WITH SCIENCE'S NEW MIDGET MIRACLE, THE PRESTO FIRE EXTINGUISHER." against an advertisement of the same size headed: "JUST SHOW THIS TO FRIENDS-MAKE GOOD MONEY FAST." In the first advertisement was a picture of the man whose statement was quoted in the headline, with his name. It is not difficult to say which of these advertisements outpulled the other by 2 to 1.

Another split-run test, in an agricultural paper for Lewis' Lye, produced similar results. In one advertisement the headline read "OHIO WOMAN FINDS EASY WAY TO SAVE \$1000," with sub-head "Homemade Soap Brings Nice Profit." In the other advertisement the headline was "PROFIT POINTERS...BY FRANK DUFFY." A second split-run test substantiated the results of the first in which the first advertisement pulled 41 percent more inquiries than the other.

If desire has been aroused, it follows that the consumer has an inclination to buy. He wants to buy; but before he can "let" himself buy he must be satisfied that he will not be making a mistake. It is up to the advertiser to bolster the consumer's desire, to give that motivating force a "Clear track," by removing the obstacle of fear—of being wrong.

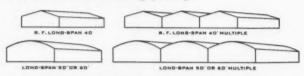
On this basis one could have foretold the results found by the NBC-Schwerin study, mentioned above, when television commercials with and with-

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PAUL I. BERTRAM OWNER

TORRINGTON 2-4082

out demonstration were tested. One commercial for a cleanser to clean greasy pans quickly and easily showed the demonstrator with the can of cleanser in one hand, the bright shiny pan in the other. When the commercial was revised to include a demonstration of the product in use the recall rating went up from 6 to 28. In other words, with the less effective commercial the sponsor would have been getting less than one fourth the effectiveness of the other presentation.

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(To be concluded in the next issue)

### Legal Implications of **Industrial Noise Problem**

(Continued from page 16)

claiming both wage-loss protection and damages-and without giving the employer anything in return such as the defenses which he relinquished when

he agreed to the system.

If we accept this principle, and embark upon the limitless sea of granting awards under our occupational disease laws for all different types of physiologic, sensory and social impairmentsand this could later be extended to include emotional and psychiatric impairments-in cases where the condition is allegedly due to occupation but where there is no loss of earnings, we will place on industry, on the products of industry, and on the public, a monumental and impossible cost which might destroy our American way of life. It would be far better to spend any excess funds available under our free economy to strengthen our existing forms of wage-loss protection, and to rehabilitate those seriously injured by industrial accidents, before we sanction the principle of paying compensation for these non-economic losses. This is particularly true under the Workmen's Compensation system under which the public, countless of whose members are suffering from many of these same impairments such as deficient hearing, and who, although they do not enjoy the protection afforded by the system, are nevertheless compelled to help pay the losses of those whose employment comes within the system's coverage. The public should not be asked to assume this burden without full knowledge of the mechanics involved in creating a benefit for one at the expense of the other and where both, apart from the cause, may have identically the same dysfunction.

### In Conclusion

The whole problem is a complex one. To solve it we need continued research to determine what industrial noise levels are hazardous and in what way scientifically to determine how much of the worker's hearing loss, if any, is due to his work rather than to other causes. There is need of a national agency to correlate the widely scattered research activities now being conducted by different groups throughout the country.

Much can be done by the institution of conservation of hearing programs in individual plants, and it seems certain that in coming years more emphasis will be placed on noise abatement.

Finally, for the reasons stated, there is need in every state either to restore or to preserve the wage-loss concept in claims for occupational loss of hearing. Associated Industries of New York State prepared and had such a bill introduced at the last session of the New York Legislature, but it was not passed. In any state where the problem arises finding a solution for it on the legislative level will, because of its many medical, acoustical and socio-economic ramifications, require extensive education of both the public and the members of the Legislature.

The problem's final solution will require patience and cooperation. All groups should view it objectively, without antagonism, and in the light of what is best for industry, what is best for the state's employees whose jobs depend on a healthy economy and maintenance of the state's competitive industrial position, and what is best for the public which "pays the bill." Only by such an approach can the right an-

swers be found.

### **Fourth Industry-Education** Day in Stamford-Greenwich Area

(Continued from page 11)

of Connecticut was represented by Mr.

L. M. Bingham, Secretary.

Mr. Joseph P. Crosby, National President of the American Society of Tool Engineers spoke briefly on the

future plans of the society.

The principal speaker of the evening was Col. Wilbur R. Carter, Deputy Director of Industrial Resources, Headquarters U. S. A. F. He visualized the great production possibilities of this country when the huge 35,000 and 50,000 ton presses, now being built for the Air Force, are in production.



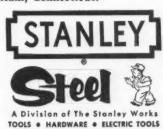
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### **BUSINESS PATTERN**

A comprehensive summary of the ups and downs of industrial activity in Connecticut for the thirty day period ending on the 15th day of the second previous month.

THE May index of general business activity in Connecticut rose one percentage point to an estimated 16% above normal. In the past two months the decline in the index has met with some resistance after having fallen off eighteen points in the preceding nine months. Construction activity, which reached an all time high recently, has been largely responsible for checking the downward trend in the general index. For May, in addition to the strong construction situation, there was a substantial improvement in freight shipments. Together these more than offset small losses in factory employment and manhours, while cotton mill operations remained unchanged. According to a preliminary estimate, the United States index of industrial activity for May was 2% above normal. This is the second consecutive month at this standing and indicates that the downswing in the National index is also meeting resist-

ance. Previously, the U. S. index had declined approximately eighteen percentage points in eleven months.

The index of manufacturing employment in Connecticut declined one percentage point during May to approximately 15% above normal, the tenth successive monthly decrease. At present this indicator is eleven points lower than it was at this time last year and thirteen points below the summer 1953 peak. In comparison with where it now stands, the averages of the employment index for the four years, 1950 through 1953, were respectively 6%, 18%, 19%, and 25% above normal. The following table, based on figures released by the Boston Office of the United States Department of Labor, shows total manufacturing employment as it has changed in the past year and as it is related to population and non-agricultural employment for the United States, New England and the states comprising this Region:

### Manufacturing Employment In April 1954

	No. of Employees	% Change from Apr. 1953	% of Popu- lation	% of Non- Agricultural Employment
United States	15,965,000	<del></del> 7.8	10.1	33.3
New England	1,437,500	-9.3	14.8	42.1
Massachusetts	674,000	9.7	13.8	38.5
Connecticut	424,400	-7.8	19.4	. 49.8
Rhode Island	124,700	-15.1	15.0	44.2
Maine	97,900	-10.4	11.0	38.2
New Hampshire	78,000	-4.9	14.8	46.1
Vermont	38,500	-5.4	10.3	38.1

The table reveals that, during the last twelve months, industrial employment has fallen off as much in Connecticut as it has in the Country, but less than it has in the New England Region as a whole. This State is also ahead of the National and Regional averages for the percentages of total population and

non-agricultural employment represented by its manufacturing workers. Since April 1953, these percentages have gone down for all the locations mentioned in the table, illustrating the effect of the current business decline upon the manufacturing industry.

The May index of manhours worked

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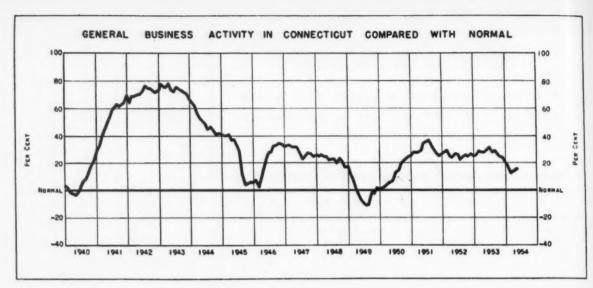
# AN EDUCATION IN 'FACE-LIFTING' BY BARNEY'S



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in Connecticut factories fell one percentage point to an estimated 20% above normal. The decrease this month was due mainly to a reduction in the number of manufacturing employees. A year ago, this indicator was 36% above normal and by June of last year reached a high of +39% before turning downward. The average of the manhours index for the recession year of

1949, was a tenth of a point below normal. Average hours worked per week in Connecticut factories were 39.9 for May versus 42.6 for the same month of last year. Average weekly earnings in May were also lower than for May of 1953, \$71.82, compared with \$74.98. The drop in weekly earnings during the past year was attributable to the shorter average work week, rather than any

softening in average hourly earnings which held for the second month at the all-time high of \$1.80, as compared with the \$1.76 recorded a year ago.

The index of Connecticut construction activity increased two points during May to an estimated 126% above normal. On a seasonally adjusted basis, the index is now the highest it has ever been. This is of even greater signifi-

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cance when we recall that, since the beginning of 1946, with the exception of a short period in 1949, construction activity in this state has been sustained at boom proportions with an overall average during this eight year period of 63% above normal. The tendency for the index to soften in the fall of 1953 was short lived, and contrary to general business activity construction soared fifty-nine points since November, climbing most steeply in March and April this year when it went up thirtyone points for the two month period. The unprecedented level of construction activity for this season of the year is evident when it is observed that building contracts awarded in Connecticut during the first four months of this year amounted to a record 10,228,000 square feet of floor space compared with 9,323,000 square feet contracted for during the same period of 1952, the previous high year. Residential awards totaling 7,547,000 square feet for the current period were also above the former peak of 7,034,000 awarded in January through April of 1952, while non-residential awards are the highest for the first four months of any year since 1946.

### Industry Day at International Silver Company

(Continued from page 14)

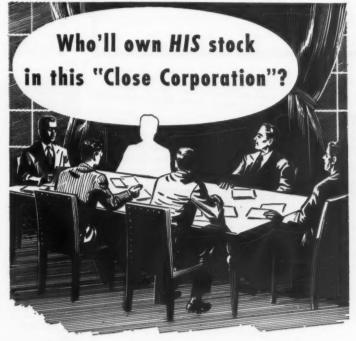
high point of enthusiasm was reached during the tour of International's display rooms on Colony Street, Meriden. Here women viewed every conceivable type of place setting done with silverware from the most inexpensive flatware to the deluxe settings of sterling.

Reluctantly, after several diplomatic reminders, club members left the display rooms to assemble in Insilco Hall where a buffer luncheon was served. All guests found at their places at the luncheon tables an envelope containing literature about the company and its products and a pin made into a replica of one of the many styles of spoons made by International.

After luncheon Mr. L. F. Revere, vice president in charge of manufacturing, welcomed the Federation members and introduced George Morrison, advertising director. Mr. Morrison, in turn, added his welcome and gave a brief introduction of the film, "America's First Silver Plate," which highlighted the historical development of

the silverware industry and International Silver, showing the step by step progress of the industry from the days of pewter and coin silver to the "lush" settings of flatware and sterling—all placed on tables in homes that were in keeping with the period settings.

President Maltby Stevens, who had been engaged in contract negotiations with Army officials, arrived after the luncheon to give a sincere welcome to Federation members and to express regrets over his inability to be present during the luncheon. Both Mrs. Fred Beaucar, Industry Day Chairman, and Mrs. Clifford A. Teeple, president of the Connecticut Federation of Women's Clubs, expressed warm appreciation for the hospitality extended by International Silver.



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### IT'S MADE IN CONNECTICUT

EDITOR'S NOTE: This department, giving a partial list of peace-time products manufactured in Connecticut by company, seeks to facilitate contacts between prospective purchasers in domestic or foreign markets and producers. It includes only those listings purchased by Connecticut manufacturers. Interested buyers may secure further information by writing this department. Connecticut manufacturers desiring to list their products in this department should write the Editor for listing rates.

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Accounting Forms Baker-Goodyear Co The New Haven	Anodizing Conn Metal Finishing Co Hamden	Fafnir Bearing Co (ball)  Marlin-Rockwell Corporation  Plainville
Underwood Corporation Bridgeport	Anodizing Equipment Conn Metalcraft Inc New Haven	New Departure Div of General Motors (ball)  Bristol  Norma-Hoffmann Bearings Corp (ball and
Underwood Corporation Bridgeport	Artificial Leather Permatex Fabrics Corp The Jewett City	roller) Stamford Bellows
Advertising Specialties H C Cook Co The 32 Beaver St Ansonia New Haven	Asbestos Auburn Manufacturing Company The (gaskets,	Bridgeport Thermostat Company Inc (metallic) Bridgeport
Air Compressors Spencer Turbine Co The Hartford Air Conditioning	packings, wicks)  Middletown Raybestos Div of Raybestos Manhattan Inc The (brake linings, clutch facings, sheet packing and wick)  Bridgeport	Bellows Assembles Bridgeport Thermostat Company Inc Bridgeport
Norwalk Airconditioning Corp The (forced air heating units oil fired) South Norwalk	Asbestos & Rubber Packing Colt's Manufacturing Company Hartford	Bellows Shaft Seal Assemblies Bridgeport Thermostat Company Inc
The Torrington Manufacturing Co Torrington	Asarcon Bronze Knapp Foundry Company Inc (bushing &	Bells Bevin Brothers Mfg Co.  Bells East Hampton
Sikorsky Aircraft Division United Aircraft Cor- poration (helicopters) Bridgeport	bearing stock) Guilford  Assemblies—Small	Gong Bell Co The East Hampton N N Hill Brass Co The East Hampton
Chandler Evans Div Niles-Bement-Pond Co West Hartford Gabb Special Products Div E Horton & Son	Greist Manufacturing Co The New Haven J H Sessions & Son Bristol Wallace Barnes Co The Div Associated Spring Corp Bristol	Belt Fasteners Saling Manufacturing Company (patented self-aligning) Unionville
Company (filler caps-pressure fuel servic- ing systems) Windsor Locks Hamilton Standard Div United Aircraft Corp (propellors and other aircraft equipment) Windsor Locks	Auto Cable Housing Wiremold Company The  Automatic Control Instruments Bristol Co The (temperature, pressure, flow,	Hartford Belting Co Russell Mfg Co The Thames Belting Co The Norwich
Manning Maxwell & Moore Inc (aircraft pressure switches and jet engine afterburner control systems)  Russell Manufacturing Company The (CAA approved safety belts; webbing and hard-	humidity, time) Waterbury  Automobile Accessories  Kilbourn-Sauer Company (lights and other acces-	Bends-Pipe or Tube National Pipe Bending Co The 160 River St New Haven
approved safety belts; shock rings and shock ware for safety belts; shock rings and shock cord; ring and cord hardware; webbing for all aircraft applications) Middletown	sories)  Raybestos Div of Raybestos-Manhattan Inc The (brake, lining, rivet, brass, clutch facings, packing)  Bridgeport	Blcycle Coaster Brakes New Departure Div General Motors Corp Bristol
Gorn Electric Company Inc Stamford	Metropolitan Body Company Bridgeport	New Departure Div General Motors Corp Bristol
Aircraft—Repair & Overhaul Airport Department Pratt & Whitney Aircraft Division Rentschler Field East Hartford	Automotive Parts  Eis Manufacturing Co (Hydraulic and Me- chanical) Middletown	Colonial Board Company Manchester
United Manufacturing Company Hamden  Air Ducts	Automotive & Service Station Equipment Raybestos Div of Raybestos-Manhattan Inc The (brake service machinery) Bridgeport	Biological Products Ernst Bischoff Company Inc Ivoryton
Wiremold Co The (Retractable) Hartford  Air Heaters—Direct Fired	Scovill Manufacturing Company (Canned Oil Dispensers) Waterbury 91	Blacking Salts for Metals Enthone Inc New Haven
Peabody Engineering Corporation Stamford  Aluminum Bronze Castings	Eis Manufacturing Company Middletown	Mitchell-Bradford Chemical Co Bridgeport
Knapp Foundry Company Inc Guilford  Aluminum Castings	American Paper Goods Company The Kensington	Capewell Manufacturing Company Metal Saw Division (hack saw and band saw) Hartford
Consolidated Industries Inc West Cheshire Eastern Malleable Iron Company The Naugatuck	Watertown Mfg Co The Watertown	Blankets—Automatic General Electric Company Bridgeport
Newton-New Haven Co 688 Third Avenue West Haven Charles Parker Company The Meriden	Abbott Ball Co The (steel bearing and burnish- ing) Hartford	Blocks
Stamford Casting Company Inc (Aluminum, Magnesium and Bronze) Stamford	Hartford Steel Ball Co The (steel bearing and burnishing, brass, bronze, monel, stainless aluminum) Hartford	Howard Company (cupola fire clay) New Haven
Aluminum Forgings Consolidated Industries Inc Scovill Manufacturing Company Waterbury 91  Aluminum Ingots	Kilian Steel Ball Corp The Hartford  Banbury Mixers	Colonial Blower Company Spencer Turbine Co The  Blower Fans Plainville Hartford
Lapides Metals Corp New Haven Aluminum Lasts	Farrel-Birmingham Company Inc Ansonia  Barrels  Abbott Ball Co The (burnishing and tumbling)	Blower Systems Colonial Blower Company Plainville
United States Rubber Company Shoe Hardware Division Waterbury	Hartford-Steel Ball Co The (tumbling) Hartford	Ripley Co Middletown  Blueprints and Photostats
Baer Brothers Stamford	Barrala Tumbling	Joseph Merritt & Co Hartford
	Dathmann Assessales	Bollers
Baer Brothers Aluminum Paste Stamford	Autoyre Company The Oakville	Bigelow Co The New Haven
Baer Brothers  Aluminum—Sheets & Colls United Smelting & Aluminum Co Inc	Autoyre Company The Charles Parker Co The Meriden  Batterles	Bolts and Nuts
Baer Brothers Stamford Aluminum—Sheets & Colls	Autoyre Company The Oakville Charles Parker Co The Meriden	•

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Bottle Openers Scoville Mfg Co (steel, anodized aluminum) Waterbury	Bridgeport Brass Co Bridgeport	Andrew B Hendryx Co The (bird and animal) New Haven
Box Board Lydall & Foulds Paper Co The National Folding Box Co Inc New Haven	Chase Brass & Copper Co Waterbury Plume & Atwood Mfg Co The Scovill Manufacturing Company Western Brass Mills Division of Olin Indus-	Cams American Cam Company Inc Hartford Special Machinery Co The Hartford
Robertson Paper Box Co Montville Gair Company Inc Robert Montville New Haven Board and Carton Co The	Western Brass Mills Division of Olin Indus- tries Inc New Haven  Brick-Building	Rowbottom Machine Company Inc Waterbury  Canvas Products
New Haven Board and Carton Co The New Haven Boxes	Donnelly Brick Co The New Britain	F B Skiff Inc Hartford Capacitors
Clairglow Mfg Company (metal) Portland Connecticut Container Corporation New Haven	Br:cks-Fire Howard Company Mullite Refractories Co The New Haven Shelton	Electro Motive Mfg Co Inc The (mica & trim- mer) Willimantic  Caps & Closures—Metal
solid fibre shipping containers) Montville Merriam Mfg Co (steel cash, bond, security,	Bright Wire Goods	American Associates Mfg Corp Deep River
fitted tool and tackle boxes) Durham Warner Bros Co The (Acetate, Paper, Acetate and Paper Combinations, Counter Display, Setup) Bridgeport	Sargent & Company (Screw Eyes, Screw Hooks, Cup Hooks, Hooks and Eyes, C H Hooks)  Broaching	Standard Card Clothing Co The (for textile mills)  Card Clothing Co The (for textile Stafford Springs)  Carpenter's Tools
Boxes and Crates City Lumber Co of Bridgeport Inc The	Hartford Special Machinery Co The Hartford	Sargent & Company (Planes, Squares, Plumb Bobs, Bench Screws, Clamps and Saw
Wallingford Planing Mill Co Inc Yalesville  Boxes—Metal	Bronze & Aluminum Castings Knapp Foundry Company Inc (rough or machined) Guilford	Vices)  Carpet Cushion Sponge Rubber Products Co Inc Shelton
Merriam Mfg Co (Bond and Security, Cash and Utility, Personal Files and Drawer Safes) Durham	Baer Brothers  Bronze Powders  Stamford	Carpets and Rugs Bigelow-Sanford Carpet Co Thompsonville
Boxes—Paper—Folding Atlantic Carton Corp Bridgeport Paper Box Co Bridgeport Bridgeport Bridgeport Bridgeport	Fuller Brush Co The Hartford  Buckles	Casters Bassick Company The (Industrial and General) Bridgeport
Carpenter-Hayes Paper Box Co Inc The East Hampton Sandy Hook	B Schwanda & Sons Staffordville G E Prentice Mfg Co The Kensington	Casters—Industrial George P Clark Co Windsor Locks
Dowd Carton Co M S Folding Cartons Incorporated (paper, folding) Versailles	Hawie Mfg Co The John M Russell Mfg Co Inc. North & Judd Manufacturing Co North & Judd Manufacturing Co New Britain Waterbury	Castings Connecticut Foundry Co (grey iron) Rocky Hill
Gair Company Inc Robert Portland H J Mills Inc Bristol National Rolling Box Co Inc (paper folding)	Patent Button Co The United States Rubber Company Shoe Hard- ware Division Waterbury	Connecticut Malleable Castings Co (malleable iron castings) Consolidated Industries Inc West Cheshire
New Haven Board and Carton Co The	Buffing & Polishing Compositions	Charles Parker Company The (grey iron, brass, bronze, aluminum) Meriden
Robertson Paper Box Co Warner Bros Co The  New Haven Montville Bridgeport	Apothecaries Hall Co Waterbury Lea Mfg Co Waterbury	Eastern Malleable Iron Company The (malle- able iron, metal and alloy) Naugatuck Farrel-Birmingham Company Inc (Mechanite.
Box Shop Inc The Bridgeport Paper Box Co  Bridgeport Paper Box Co  Bridgeport	Williamsville Buff Div The Bullard Clark Danielson	Nodular, Iron, Steel)  Gillette-Vibber The (grey iron, brass, bronze, aluminum, also Bronze Bushing Stocks)  New London
Heminway Corporation The Waterbury H J Mills Inc Strouse Adler Company The New Haven	Plume & Atwood Mfg Co The (kerosene oil lighting) Waterbury	Plainville Casting Company (gray, alloy and high tensile irons) Plainville Malleable Iron Fittings Co (malleable iron and
Warner Bros Co The Bridgeport  Brake Cables	Burners-Automatic Peabody Engineering Corporation Stamford	McLagon Foundry Co (grey iron) New Haven Meyer Iron and Brass Foundry Inc (grey iron) Shelton
Eis Manufacturing Co Middletown  Brake Linings	Burners—Coal and Oil Peabody Engineering Corporation (Combined)	Newton-New Haven Co (zinc and aluminum) 688 Third Ave West Haven Philbrick-Booth & Spencer Inc (grey iron)
Raybestos Div of Raybestos-Manhattan Inc The (automotive and industrial) Bridgeport Russell Mfg Co The Middletown	Stamford  Burners—Gas Peabody Engineering Corporation (Blast Fur-	Producto Machine Company The Bridgeport Scovill Manufacturing Company (Brass & Bronze)
Brake Service Parts Eis Manufacturing Co  Brass & Bronze	nace) Stamford Burners—Gas and Oil	Magnesium and Bronze) Stamford
American Brass Co The (sheet, wire, rods, tubes) Bridgeport Brass Company (sheet, rod, wire	Peabody Engineering Corporation (Combined) Stamford Burners—Refinery	Turner & Seymour Mfg Co The (gray iron, semi steel and alloy) Torrington Union Mfg Co (grey iron & semi steel) New Britain
and tubing) Bristol Brass Corp The (sheet, wire, rods) Bristol	Peabody Engineering Corporation (For Gas and Oil) Stamford  Burnishing	Waterbury Foundry Company The (highway & sash weights) Wilcox Crittenden & Co Inc (gray iron and
Chase Brass & Copper Co Waterbury Miller Company The (phosphor bronze and brass in sheets, strips, rolls) Meriden	Albott Ball Co The (Burnishing Barrells and Burnishing Media) Hartford	brass) Middletown  Castings—investment  Arwood Precision Casting Corp Grotou
Plume & Atwood Mfg Co The (sheet, wire, rod) Thomaston Scovill Manufacturing Company Waterbury 91 Tinsheet Metals Co The (sheets and rolls)	Pratt & Whitney Div Niles-Bement-Pond Co West Hartford Buttons	Castings—Permanent Mould Charles Parker Company The Groton Meriden
Western Brass Mills Division of Olin Indus- tries Inc (sheet, strip) New Haven	B Schwanda & Sons Staffordville Frank Parizek Manufacturing Co The Putnam Patent Button Co The Waterbury	Cements—Refractory Mullite Refractory Co The Shelton
Brass & Bronze Ingot Metal Plume & Atwood Mfg Co The Thomaston Whipple and Choate Company The Bridgeport	Scovill Manufacturing Company (Uniform and Tack Fasteners) Waterbury 91 Waterbury Companies Inc (Uniform and Fancy Dress) Waterbury	John M. Russell Mfg Co Inc Naugatuck Turner and Seymour Mfg Co The (weldless, sash, jack, safety, furnace, universal, lion
Brass, Bronze, Aluminum Castings Charles Parker Company The Meriden Stamford Casting Company Inc Stamford	Cabinets Charles Parker Co The (medicine) Meriden	and cable) Torrington Chain—Power Transmission and Conveying
Victors Brass Foundry Inc Guilford	Cabinet Work Hartford Builders Finish Co Hartford Cable—Asbestos insulated	Whitney Chain Company Hartford  Chain-Welded and Weldless
American Associates Mfg Corp American Brass Company The Waterbury Plume & Atwood Mfg Co The (to order) Waterbury	Rockbestos Products Corp New Haven  Cable—BX Armored	Bridgeport Chain & Mfg Co Bridgeport  Chain—Bead
Rostand Mfg Co The (Ecclesiastical Brass Wares) Milford Scovill Manufacturing Company (to order)	General Electric Company Bridgeport  Cable—Nonmetallic Sheathed	Auto-Swage Products Inc Shelton Bead Chain Mig Co The Bridgeport
Western Brass Mills Division of Olin Indus- tries Inc	General Electric Company Bridgeport  Cable—Service Entrance General Electric Company Bridgeport	Chairs The Hitchcock Chair Company (Advt.)

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rwin Company The North Haven Chemicals	Plastricrete Corp Hamden	Veeder-Root Inc Hartford
nerican Cyanamid Company othecaries Hall Co trwin Company The  Waterbury Waterbury North Haven	Sonoco Products Co (Climax-Lowell Div) (Paper) Mystic  Consulting Engineers	Couplings—Self-Sealing Sperry Products Inc Danbury
Ican Laboratories South Norwalk acalaster Bicknell Company acDermid Incorporated Waterbury	Stanley P Rockwell Co Inc The (Consulting) 296 Homestead Ave Hartford	Cranes and Conveyors I-B Engineering Sales Co New Haven
Rubber Co  Wangatuck  Rubber Co  Wangatuck  Rubber Company  Canaan	Pratt & Whitney Div Niles-Bement-Pond Co West Hartford	Farrel-Birmingham Crushers Company Inc (Stone and Ansonia
Chemicals—Agriculture augatuck Chemical Division United States	Contract Machining Malleable Iron Fittings Company Branford	American Paper Goods Company The ("Puritan")
Rubber Co (insecticides, fungicides, weed killers)  Chemicals—Aromatic	Contract Manufacturers  American Associates Mfg Corp (metal stampings & assemblies)  Greist Mfg Co The (metal parts and assemblies)	Cushioning for Packaging Gilman Brothers Co The Gilman
augatuck Chemical Division United States ubber Co Naugatuck Christmas Light Cl:ps	Merriam Mfg Co (production runs—metal boxes	Dextone Co The New Haven
Chromium Plating	and containers to specifications)  Plume & Atwood Mfg Co The (metal parts & assemblies)  Waterbury	Cutters Barnes Tool Company The (pipe cutters, hand)
merican Associates Mfg Corp hromium Corp of America Waterbury hromium Process Company The Shelton	Scovill Manufacturing Company (metal parts and assemblies) Waterbury 91 J H Sessions & Son Bristol	Mitrametric Co The (ground pinion) Torrington Pratt & Whitney Div Niles-Bement-Pond Co
ty Plating Works Inc Bridgeport  Chucks ushman Chuck Co The Hartford	Bristol Company The Waterbury Manning Maxwell & Moore Inc Stratford	(Milling Cutters all types) West Hartford  Decorative Plating and Polishing
forton Chuck Div The E Horton & Son Com- pany Windsor Locks acobs Manufacturing Co The West Hartford	Conveyor Systems Leeds Electric & Mfg Co The  East Haven  Production Fouriers Co.	City Plating Works Inc Bridgeport  Delayed Action Mechanism
nion Manufacturing Company New Britain  Chucks-Drill	Production Equipment Co Meriden  Copper  American Brass Corp The (sheet, wire, rods,	M H Rhodes Inc R W Cramer Company Inc The Hartford Centerbrook
acobs Manufacturing Co The West Hartford Chucks & Face Plate Jaws	tubes) Waterbury Bridgeport Brass Company (sheet, rod, wire and tubing) Bridgeport	Demineralizers Crystal Research Laboratories Hartford
Inion Mfg Co New Britain Horton Chuck Div The E Horton & Son Com- pany Windsor Locks	Bristol Brass Corp The (steel) Bristol Chase Brass & Copper Co (sheet, rod, wire tube) Waterbury	Diamonds—Industrial Diamond Tool and Die Works  Hartford
Chucks—Power Operated Cushman Chuck Co The Hartford Union Manufacturing Company New Britain	Thinsheet Metals Co The (sheets and rolls) Waterbury Western Brass Mills Division of Olin Industries Inc (sheet, strip) Western Brass Mills Division of Olin Industries Inc (sheet, strip)	Dictating Machines Dictaphone Corporation Gray Manufacturing Company The Soundscriber Corporation The  Bridgeport Hartford New Haven
Clay Ioward Company (Fire Howard "B" and High Temperature Dry) New Haven	Copper Castings Knapp Foundry Company Inc Guilford	Newton-New Haven Co Inc New Haven
Enthone Inc (Industrial)  Compounds  New Haven	Copper Sheets American Brass Company The New Haven Copper Co The  Waterbury Seymour	ABA Tool & Die Co Parker Stamp Works Co The  Manchester Hartford
Cleansing Compounds MacDermid Incorporated Waterbury	Copper Shingles New Haven Copper Co The Seymour	Weimann Bros Mfg Co The Derby
Clock Mechanisms  Lux Clock Mfg Co The Waterbury  Clocks	Copper Water Tube American Brass Company The Waterbury	Die Castings (Aluminum & Zinc) Stewart Die Casting Div Stewart Warner Corp Bridgeport
E Ingraham Co The Bristol Seth Thomas Clocks United States Time Corporation The Waterbury	Bridgeport Brass Co Bridgeport  Cords—Asbestos General Electric Company Bridgeport	Die Heads-Self Opening Eastern Machine Screw Corp The Truman & Barclay Sts New Haven
Lux Clock Mfg Co The Waterbury	General Electric Company Bridgeport	Die Polishing Machinery Hartford Special Machinery Co The Hartford
Clocks—Automatic Cooking Lux Clock Mfg Co The Waterbury	General Electric Company Bridgeport	Die Sets Pratt & Whitney Div Niles-Bement-Pond Co
Snow-Nabstedt Gear Corp The New Haven Clutch Facings	Cords—Portable General Electric Company Bridgeport	(Precision) West Hartford Producto Machine Company The Bridgeport Union Mfg Co (precision, steel and semi-steel)
Russell Mfg Co The Middletown  Clutch—Friction	Seeger-Williams Inc Bridgeport	New Britain
Raybestos Div of Raybestos-Manhattan Inc The (clutch facings—molded, woven, fabric, me- tallic) Bridgeport	General Electric Company Bridgeport  Cork Cots	Hoggson & Pettis Mfg Co The 141 Brewery S New Haver Mitrametric Co The (ground for gears)
Dano Electric Company Winsted	Sonoco Products Co (Climax-Lowell Div) Mystic	Parker Stamp Works Inc The (plastics and die castings)  Torrington
Bittermann Electric Company Canaan	Corrugated Box Manufacturers Connecticut Container Corporation New Haven Corrugated Shipping Cases	Pratt & Whitney Div Niles-Bement-Pond C (Monocone and Ducone Dies) West Hartford
National Pipe Bending Co The 160 River St New Haven	Connecticut Container Corporation New Haven Connecticut Corrugated Box Div Robert Gair Co Inc Portland	Die Sinkers Pratt & Whitney Div Niles-Bement-Pond C West Hartfor
Whitlock Manufacturing Co The Hartford  Commercial Heat Treating  A F Holden Company The	D L & D Container Corp 87 Shelton Ave New Haven Cosmetic Containers	Dies and Die Sinking Consolidated Industries West Cheshir
52 Richard St West Haven Commercial Truck Bodies	Evelet Specialty Co The Waterbury Plume & Atwood Mfg Co The (metal) Waterbury	Dish Drying Machines
Comparators Pratt & Whitney Div Niles-Bement-Pond Co	J B Williams Co The Glastonbury	Dish Washing Machines
(Electro-limit and Air-O-Limit) West Hartford Compressors	Bland Burner Co The Traction	Displays-Metal
Norwalk Company Inc (high pressure air and	Cotton Yarn	Merriam Mfg Co (Contract Work to Individual Specifications)  Durham

### IT'S MADE IN CONNECTICUT

ware Corp New Britain	R W Cramer Company Inc The Centerbrook  Electric Timers	Envelopes—Stock and Special American Paper Goods Company The Kensington
Sargent & Company Yale & Towne Mig Co The  New Haven Stamford  Dowel Pins	Sessions Clock Co The Forestville	Extractors—Tap Walton Company The West Hartford
Allen Manufacturing Co The Holo-Krome Screw Corp The West Hartford  Drafting Accessories	Electric Timing Motors Sessions Clock Co The (small) Forestville Electric Wire General Electric Company Bridgeport	American Brass Company The Platt Bros & Co The P O Box 1030 Waterbury Plume & Atwood Mig Co The Scovill Manufacturing Company Waterbury 91
Joseph Merritt & Co Hartford  Drilling Machines	Rockbestos Products Corp (asbestos insulated) New Haven Electric Wiring Devices	Eylets, Ferrules and Wiring Terminals American Brass Company The Waterbury
Pratt & Whitney Div Niles-Bement-Pond Co (Deep Hole) West Hartford	Arrow-Hart & Hegeman Electric Co The Hartford General Electric Company Bridgeport	Eylet Machine Products Ball & Socket Mfg Co The West Cheshire
Drilling and Tapping Machinery Hartford Special Machinery Co The Hartford Drop Forgings	Electrical Circuit Breakers Federal Electric Products Co Inc Hartford	American Brass Company The Waterbury
Atwater Mfg Co  Blakeslee Forging Company The  Plantsville	Electrical Conduit Fittings & Grounding Specialties	Fabricated Alloys Rolock Inc (Heat Treating, Finishing) Fairfield
Consolidated Industries Wilcox Crittenden & Co Inc  West Cheshire Middletown	Gillette-Vibber Company The New London  Electrical Control Apparatus	Fancy Dress Buttons and Buckles Waterbury Companies Inc Waterbury
Druggists' Rubber Sundries Seamless Rubber Company The New Haven	Federal Electrical Products Co Inc Hartford Plainville Electrical Products Co The Plainville	Fans—Electric General Electric Company  Bridgeport  Fasteners—Slide & Snap
Duplicating Machines—Automatic Pratt & Whitney Div Niles-Bement-Pond Co West Hartford	A C Gilbert Co  Electrical Goods  New Haven	Fasteners—Silde & Snap G E Prentice Mfg Co The Scovill Manufacturing Company (snap and slide fasteners) Waterbury 91
Rockbestos Products Corp (asbestos insulated) New Haven	U S Electrical Motors Inc Milford  Electrical Outlet and Switch Boxes, and  Covers	Feit Auburn Manufacturing Company The (mechanical, cut parts) Drycor Felt Company (paper makers and in-
Sessions Clock Co The (alarm, kitchen, occasional and office)  Forestville	General Electric Company Bridgeport  Electrical Recorders	dustrial) Staffordville Felt-All Purpose
Electric-Commutators & Segments Cameron Elec Mfg Co The (rewinding motors) Ansonia	Bristol Co The Waterbury  Electrical Relays and Controls  Allied Control Co Plantsville	American Felt Co (Mill & Cutting Plant)  Chas W House & Sons Inc (Mills & Cutting Plant)  Chas W House & Sons Inc (Mills & Cutting Plant)
Bristol Spring Manufacturing Co Plainville	Electrical Switchboards Plainville Electrical Products Co The	Fenders-Boat Sponge Rubber Products Co Inc Shelton
General Electric Company Rockbestos Products Corp (asbestos insulated) New Haven	Wiremold Co The  Hectronics  Plainville Hartford	Case Brothers Inc. C H Norton Co The Stevens Paper Mills Inc The Windsor
United Cinephone Corporation Torrington	Gray Manufacturing Company The Hartford Ripley Co Middletown Sturrup Larrabee & Warmers Inc Middletown	Finger Nail Clippers H C Cook Co The 32 Beaver St Ansonia
Electric Fixture Wire General Electric Company Rockbestos Products Corp (asbestosinsulated) New Haven	Electroplating American Associates Mfg Corp National Sherardizing & Machine Co Hartford Waterbury Plating Company Waterbury	Standard Card Clothing Co The Stafford Springs Films
Electric Hand Irons Winsted Hardware Mfg Co (trade mark "Durabilt") Winsted	Electroplating—Equipment & Supplies Enthone Inc Lea Manufacturing Co The Waterbury	Cine-Video Productions Inc Milford
Electric Heating Elements Hartford Element Co Hartford Electric Insulation	MacDermid Incorporated Waterbury  Electroplating Processes & Supplies Enthone Inc New Haven	Colt's Manufacturing Company Hartford Marlin Firearms Co The New Haven O F Mosberg & Sons Inc New Haven Remington Arms Company Inc Bridgeport Winchester Repeating Arms Company Division
Case Brothers Inc Stevens Paper Mills Inc The  Manchester Windsor	United Chromium Incorporated Waterbury  Electrotypes	Olin Industries Inc New Haven
Electric Lighting Fixtures Fan-Craft Mfg Co (residential, church, post lanterns) Plainville	Barnum-Hayward Electrotype Co Inc New Haven Electrotype Div Electrographic	Fabrics Fire Hose (municipal and industrial) Sandy Hook
Plainville Plume & Atwood Mfg Co The Waterbury Wasley Products Inc	Corp New Haven  Elevators  Eastern Machinery Co The (passenger and	Fireplace Goods  American Windshield & Specialty Co The 881 Boston Post Road Milford John P Smith Co The (screens) 423-33 Chapel
Electric Motor Controls  Arrow-Hart & Hegeman Electric Co The Hartford	General Elevator Service Co Enameling  (passenger and New Haven  New Haven  Hartford	St New Haven  Pireproof Floor Joists  Dextone Co The (screens) 423-35 Chapet New Haven
Electrical Outlet and Switch Boxes, and Covers	Conn Metal Finishing Co Waterbury Plating Company Waterbury	Dextone Co The New Haven  Fireworks  M Backes' Sons Inc Wallingford
General Electric Company Bridgeport  Electric Panel Boards	Enameling and Finishing Clairglow Mfg Co Portland	Fishing Tackle Bevin-Wilcox Line Co The (lines)
Federal Electric Products Co Inc Hartford	Baer Brothers Enamels Stamford	H C Cook Co The 32 Beaver St Ansonia
Electric Safety Switches Federal Electric Products Co Inc Hartford	Pratt & Whitney Div Niles-Bement-Pond Co	Flashlights Bond Electric Corporation Division of Olin Industries Inc New Haven
Schick Incorporated Stamford  Electric Signs  Berger Sign Co.  Heatford	Pratt & Whitney Aircraft Div United Aircraft	Bridgeport Metal Goods Mfg Co Bridgeport Winchester Repeating Arms Company Division Olin Industries Inc New Haven
Berger Sign Co United Advertising Corp Hartford New Haven	Corp (aircraft) Wolverine Motor Works Inc (diesel stationary marine)  East Hartford (diesel stationary Bridgeport	Flat Springs Bristol Spring Manufacturing Co Plainville
Arrow-Hart & Hegeman Electric Co The Hartford	Curtis 1000 Inc Hartford United States Envelope Company	Flexible Shaft Machines Pratt & Whitney Div Niles-Bement-Pond Co
General Electric Company Bridgeport	Hartford Division Hartford	West Hartford (Advt.)
	1014	

### MADEIN IT'S CONNECTICUT

Fluorescent Lighting Equipment
Fullerton Manufacturing Corp Norwalk
Vanderman Manufacturing Co The
Willimantic
Wiremold Company The
WHartford

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Food Mixing Machines Colt's Manufacturing Company Hartford

Forgings
Clark Brothers Boit Co Milldale
Consolidated Industries Inc West Cheshire
Heppenstall Co (all kinds and shapes)
Bridgeport Scovill Manufacturing Company (Non-ferrous)
Waterbury 91

Foundries

Connecticut Malleable Castings Co (malleable iron castings)

Formal Charles Parker Company Inc (Iron and Steel)

Charles Parker Company The (iron, brass, bronze, aluminum)

Plainville Casting Company (gray, alloy and high tensile irons)

Producto Machine Company The Stamford Casting Company Inc (Aluminum, Magnesium and Bronze)

Stonington Div of Embart Manufacturing Co Stonington Stonington

Turner & Seymour Mfg Co The (gray iron, semi steel and alloy)

Union Mfg Co (gray iron & semi steel)

Wilcox Crittenden & Co Inc (iron, brass, aluminum and bronze)

Stonington

Stonington

Gray iron,

Torrington

New Britain

Wilcox Crittenden & Co Inc (iron, brass, aluminum and bronze)

Fountain Pens and Mechanical Pencils Waterman Pen Company Inc Seym

John P Smith Co The 42 John P Smith Co The 423-33 Chapel St New Haven Rolock Inc (brass, galvanized steel) Fairfield

Fuel Oil Pump and Heater Sets
y Engineering Corporation Stamford Furnaces

Norwalk Airconditioning Corp The (warm air oil fired) South Norwalk

oil fired)

Furnace Linings

Mullite Refractories Co The (refractories, suShelton

Fuses-Plug and Cartridge
General Electric Company Bridgeport

Gage Blocks

att & Whitney Div Niles-Bement-Pond Co
(Alloy steel and Carbide, Hoke and USA)

West Hartford Galvanizing

Malleable Iron Fittings Co Wilcox Crittenden & Co Inc Branford Middletown Galvanizing & Electrical Plating
Gillette-Vibber Co The New London

Auburn Manufacturing Company The (from all materials) Middletown Raybestos Div of Raybestos-Manhattan Inc The Bridgeport Tsingris Die Cutting Corp (from all mate-rials)

Bridgeport
Waterbury

Gas Range Conversion Burner
Holyoke Heater Corp of Conn Inc Hartford

Gas Scrubbers, Coolers and Absorbers body Engineering Corporation Stam

Bristol Co The (pressure and vacuum—recording automatic control) Waterbury Helicoid Gage Division American Chain & Cable Co The (pressure and vacuum)

Bridgeport Stratford Manning Maxwell & Moore Inc Stratford
Pratt & Whitney Div Niles-Bement-Pond Co
(Precision Measurement all types)
West Hartford

Mitrametric Co The (blanked fine pitch) Torrington

Gears and Gear Cutting Farrel-Birmingham Company Inc Hartford Special Machinery Co The Hartford

Glass Blowing Macalaster Bicknell Company New Haven

Glass Cutters
Fletcher-Terry Co The Glass Making Machinery
Hartford-Empire Company Div of Embart Manufacturing Co Hartford

Floor & Celling Plates

Beaton & Cadwell Mfg Co The New Britain Horton Mfg Co The (clubs, shafts, balls, bags)

Bristol

A D Steinbach & Sons Inc New Haven

Farrel-Birmingham Company Inc (Roll and Cylindrical)

Hartford Special Machinery Co The (gears, threads cams and splines)

Horberg Grinding Industries Inc (Precision custom grinding; centerless, cylindrical, surfaces, internal and special)

19 Staples St Bridgeport

Grinding Heads—Internal
Pratt & Whitney Div Niles-Bement-Pond Co
(Pneumatic, High Speed) West Hartford

Grinding Machines
Farrel-Birmingham Company Inc (Roll)

Farrel-Birmingham Company Inc (Roll)
Ansonia
Pratt & Whitney Div Niles-Bement-Pond Co
(Surface, Die, Gear and Cutter Grinders)
West Hartford
Rowbottom Machine Company Inc (cam)
Waterbury

Grommets American Brass Company The Plume & Atwood Mfg Co The Waterbury

Guards for Machinery
Wheeler Co The G E New Haven

Hack and Band Saw Blades Capewell Manufacturing Co The

Hand Tools

Bridgeport Hdwe Mfg Corp The (nail pullers, scout axes, box opening tools, trowels, coping saws, putty knives)

Bridgeport

Bridgeport

Hard Crome City Plating Works Inc Bridgeport

Hardness Testers Wilson Mechanical Instrument Div Chain & Cable Company Inc American

Hardware
Bassick Company The (Automotive) Bridgeport
Harloc Products Corp
P & F Corbin Division The American Hardware
Corp (builders)
Sargent & Company
Wilcox Crittenden & Co Inc
and industrial)
Yale & Towne Mfg Co The
Stamford

Bridgeport
New Haven
New Haven
New Haven
New Haven
New Haven
New Haven
Stamford
Stamford

Hardware-Marine & Bus Rostand Mfg Co The Milford

Hardware—Trailer Cabinet
Excelsior Hardware Co The Stamford

Excelsior Hardware to and

Hardware, Trunk & Luggage
Corbin Cabinet Lock Div American Hardware
New Britain
Bristol Corp J H Sessions & Son Yale & Towne Mfg Co The Stamford

Doran Bros Inc Danbury

Health Surgical & Orthopedic Supports
Berger Brothers Company The (custom made for back, breast, and abdomen) New Haven

Heat Exchangers Whitlock Manufacturing Co Hartford

Heat Elements
Safeway Heat Elements Inc (sistance type) (woven wire re-Middletown

Heat Treating
A F Holden Co The 52 Richard St
Bennett Metal Treating Co The
1045 New Britain Ave
New Britain-Gridley Machine Division
The New Britain Machine Co
Stanley P Rockwell Co Inc The
296 Homestead Ave
Hartford

Stanley P Rockwen
296 Homestead Ave
Heat-Treating Equipment
Autoyre Company The 52 Richard Street
A F Holden Company The 52 Richard Street
West Haven (Main Plant)
Hartford
Fairfield Bauer & Company Inc Hartford
Rolock Inc (Baskets, Muffles, etc.) Fairfield
Stanley P Rockwell Co Inc The (commercial)
296 Homestead Ave Hartford
Wallace Barnes Co The Div Associated Spring
Bristol

Heat Treating Fixtures
Wiretex Mfg Co Inc Bridgeport

Heat Treating Salts and Compounds
A F Holden Company The
52 Richard Street West Haven
Mitchell-Bradford Chemical Co
Bridgeport

Heating and Cooling Coils
New Haven G & O Manufacturing Co

Heating Elements

Hartford Element Co Hartford
Naugatuck Chemical Division United States
Rubber Co (sulphuric, nitric acids and aniline oil)

Heatford Hartford
United States
Naugatuck
Naugatuck

Hex-Socket Screws
Bristol Company The Waterbury
Holo-Krome Screw Corp The West Hartford

Highway Guard Rail Hardware Malleable Iron Fittings Co

Homer D Bronson Company Beacon Falls

Hobs and Hobbings

ABA Tool & Die Co
Pratt & Whitney Div Niles-Bement-Pond Co
(Die and Thread Milling) West Hartford

J-B Engineering Sales Co New Haven

Union Mfg Company New Britain

Home Laundry Equipment
General Electric Company Bridgeport

Hose-Flexible Metailic American Brass Co American Metal Hose Branch Waterbury

Hose Supporter Trimmings
Hawie Mfg Co The (So-Lo Grip Tabs)
Bridgeport

Hospital Signal Systems
Conn Telephone & Electric Corp Subsidiary of
Great American Industries Inc Meriden

Hydraulic Brake Fluids
Middletown Eis Manufacturing Co

Hydraulic Controls Sperry Products Inc Danbury

Roehr Products Company Waterbury

Inductors C G S Laboratories Inc Stamford

Industrial Finishes
Atlas Powder Co Zapon Div
Chemical Coatings Corporation
United Chromium Incorporated Stamford Rocky Hill Waterbury

Industrial Tools—Powder Actuated Remington Arms Company Inc Bridg Bridgeport

Infra-Red Equipment Leeds Electric and Mfg Co The Hartford

Inks Waterman Pen Company Inc Seymour

American Cyanamid Company Waterbury

Insecticide Bomb
Bridgeport Brass Company (Aer\*a\*sol)
Bridgeport

Insulated Wire & Cable Bridgeport General Electric Company Kerite Company The Seymour

Insulated Wire & Cable Machinery
Wallingford Davis Electric Company

Instruments
Bristol Company The
J-P-T Instruments Inc (Electrical and Temperature)
Manning Maxwell & Moore Inc
Pratt & Whitney Div Niles-Bement-Pond Co
(Precision Measuring)
West Hartford

Gilman Brothers Co The Gilman

### IT'S MADE IN CONNECTICUT

Inter-Communications Equipment onn Telephone & Electric Corp Subsidiary of Great American Industries Inc Meriden	Leather Dog Furnishings Andrew B Hendryx Co The New Haven The Smith-Worthington Saddlery Co Hartford	Fenn Manufacturing Company The (special Harrison Globe Tapping Machine Company (dial ty
Interval Timers ux Clock Manufacturing Company Waterbury hodes Inc M H Hartford	G E Prentice Mfg Co The Kensington	drilling and tapping)  Hallden Machine Company The (mill)  Thomast
Ironing Machines-Electric eneral Electric Company Bridgeport	Auburn Manufacturing Company The (packings, cubs, washers, etc) Middletown	Torrington Manufacturing Co The (mill) Torringt  Machinery—Bolt and Nut
Jacquard Manchester	Letterheads Lehman Brothers Inc (designers, engravers, lithographers) New Haven	Waterbury Farrel Foundry & Machine Co T Waterbury—Cold Heading
H Sessions & Son Bristol	Lighting Accessories—Fluorescent General Electric Company Bridgeport	Waterbury Farrel Foundry & Machine Co T Waterbu
Jg Borer foore Special Tool Co (Moore) Bridgeport ratt & Whitney Div Niles Bement Pond Co West Hartford	Lighting Equ'pment Fullerton Manufacturing Corp Norwalk Miller Co The (Miller, Duplexalite, Ivanhoe)	Machinery Dealers & Rebuilders Botwinik Brothers J L Lucas and Son State Machinery Co Ine New Hav
J'g Grinder  Toore Special Tool Co (Moore) Bridgeport	United Manufacturing Co Meriden New Haven	Machinery—Extruding Standard Machinery Co The Mys
Jointing aybestos Div of Raybestos-Manhattan Inc The (compressed sheets) Bridgeport	New England Lime Company Canaan	Machinery-Metal-Working Waterbury Farrel Foundry & Machine Co Waterbury
Keller Machines ratt & Whitney Div Niles-Bement-Pond Co	Bridgeport Metal Goods Mfg Co Bridgeport	Pratt & Whitney Div Niles-Bement-Pond West Hartf
West Hartford Key Blanks	O'Toole & Sons Inc T Stamford	Waterbury Farrel Foundry & Machine Co (forming and tapping) Waterbury
ale & Towne Mfg Co The Stamford  Labels & I Cash Inc (Woven) South Norwalk	Kellogg & Bulkeley A Division of Printers Inc Hartford Lehman Brothers Inc A D Steinbach & Sons New Haven	Machinery-Screw and Rivet Waterbury Farrel Foundry & Machine Co 7 Waterbury
augatuck Chemical Division United States Rubber Co (for rubber articles) Naugatuck	Yale & Towne Mfg Co The Stamford	Machinery-Wire Drawing Waterbury Farrel Foundry & Machine Co Waterb
Label Moisteners etter Packages Inc Shelton	Locks—Builders  Eagle Lock Co The P & F Corbin Division The American Hardware Corp.  New Britain	Machinery-Wire Straightening Mettler Machine Tool Inc New Ha
Laboratory Equipment Astern Industries Inc New Haven	ware Corp , New Britain Sargent & Company Yale & Towne Mfg Co The Stamford	Campbell Machine Div American Chain & Co
Laboratory Supplies [acalaster Bicknell Company New Haven]  Laces	Locks—Cabinet  Eagle Lock Co The Excelsior Hardware Co The Stamford	Co Inc (cutting & nibbling)  Coulter & McKenzie Machine Co The (specinew development engineering design and struction)  Bridge
Vilcox Lace Corporation The Middletown  Laces and Nettings	Yale & Towne Mfg Co The Stamford  Locks—Special Purpose	Patent Button Company The Waterb
Vilcox Lace Corporation The Middletown  Lacquers & Synthetic Enamels	Eagle Lock Co The Yale & Towne Mfg Co The Stamford	A H Nilson Mach Co The (Special) Bridge
tlas Powder Co Zapon Div aer Brothers hemical Coatings Corporation inted Chromium Incorporated  Ladders  Stamford Stamford Stamford Rocky Hill Waterbury	Locks—Suitcase Eagle Lock Co The  Locks—Suit-Case and Trimmings Excelsior Hardware Co The  Stamford	Machines—Automatic Chucking Bullard Company The New Britain-Gridley Machine Division The New Britain Machine Co (mult spindle and double end) New Bri Pratt & Whitney Div Niles-Bement-Pond
W Flint Co 196 Chapel St New Haven Lamps	Locks—Trunk  Eagle Lock Co The Terryville  Excelsior Hardware Co The Stamford	(Potter & Johnson) West Hart  Machines—Automatic Screw
lume & Atwood Mfg Co The (metal oil) Waterbury	Yale & Towns Mfg Co The Stamford  Locks-Zipper	New Britain-Gridley Machine Division The New Britain Machine Co (single multiple spindle) New Bri
amphoiders—Incandescent and Fluorescent eneral Electric Company Bridgeport	Excelsior Hardware Co The Stamford  Loom—Non-Metallic	Machines—Automatic Shaft Turning Bullard Company The (30H lathe—horizo
Lamp Shades Ferplex Company The Essex	Wiremold Company The Hartford  Lumber & Millwork Products City Lumber Co of Bridgeport Inc Bridgeport	3 spindle)  Machines—Brushing Fuller Brush Co The  Hart
Lathes—Contin-U-Matic ullard Company The (vertical multi-spindle- continuous turning type) Bridgeport	Collins Company The Collinsville	Machines—Contin-U-Matic Bullard Company The (verticle multi-spind
Lathes—30H Man-Au-Trol ullard Company The (horizontal 3 spindle) Bridgeport	Machine Design Black Rock Mig Company The Bridgeport	continuous turning) Bridge Machines—Draw Benches
Lathes—Mult-Au-Matic ullard Company The (vertical multi-spindle- indexing type) Bridgeport	Machine Tools  Bullard Company The Bridgeport Pratt & Whitney Div Niles-Bement-Pond Co	Fenn Manufacturing Company The Hart  Machines—Drill Spacing  Bullard Company The (Bullard spacer—
Lathes-Toolroom and Automatic 'ratt & Whitney Div Niles-Bement-Pond Co West Hartford	Producto Machine Company The Bridgeport  Machine Work	in conjunction with radical drills) Bridge  Machines—Drop Hammers
Lathes—Vertical Turret Bullard Company The (single spindle) Bridgeport	Black Rock Mfg Company The Bridgeport Farrel-Birmingham Company Inc Ansonia Fenn Manufacturing Company The (precision	Machines—Forming A H Nilson Mach Co The (four-slide wire
Laundry Roll Covers Atlas Powder Co Zapon Div Stamford	parts) Hartford Special Machinery Co The (contract work only) National Sheradizing & Machine Co (job)	ribbon stock) Bridge  Machines—Mult-Au-Matic  Bullard Company The Bridge
and the second of the second o		Dunaid Company Inc Bridge
Lead Plating Christie Plating Co The Groton	Parker Stamp Works Inc The (Special) Hartford	John McAdams & Sons Inc Nor

### MADE IN CONNEC

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IT'S MAD	E IN CON	NECTICUT
Machines—Precision Boring New Britain-Gridley Machine Division	Metal Stampings American Associates Mig Corp Deep River	Nickel Silver Ingot Whipple and Choate Company The Bridgeport
The New Britain Machine Co New Britain	American Associates Mfg Corp American Brass Company The Autoyre Co The (Small) Oakville Bridgeport Chain & Mfg Co	Night Latches P & F Corbin Division The American Hard-
Machines—Rolling Fenn Manufacturing Company The Hartford	DooVal Tool & Mfg Inc The Naugatuck Excelsior Hardware Co The Stamford	ware Corp New Britain Sargent & Company New Haven Yale & Towne Mfg Co Inc Stamford
Machine—Slotting  Riobe Tapping Machine Company The (High Production Screw Head Slotting) Bridgeport	Greist Mfg Co The 503 Blake St New Haven H C Cook Co The 32 Beaver St Ansonia J A Otterbein Company The (metal fabrications) Middletown	Non-ferrous Metal Castings Miller Company The Meriden
Vaterbury Farrel Foundry & Machine Co The (screw head) Waterbury	J. H. Sessions & Son Patent Button Co The G E Prentice Mfg Co The Plume & Atwood Mfg Co The Waterbury Waterbury	Nuts, Bolts and Washers Clark Brothers Bolt Co Milidale
Machines-Special Fuller Brush Co The Hartford	Stanley Works The New Britain	Office Equipment Pitney-Bowes Inc Stamford
Machines—Swaging Jenn Manufacturing Company The Hartford	ware Division Waterbury	Underwood Corporation Bridgeport & Hartford  Offset Printing  Kellogg & Bulkeley A Division of Connecticut
Machines-Thread Rolling lartford Special Machinery Co The Hartford	Verplex Company The (Contract)  Waterbury Lock & Specialty Co The  Meters—Gas	Printers Inc Hartford Oll Burners Malleable Iron Fittings Co (domestic)
Vaterbury Farrel Foundry & Machine Co The Waterbury	Sprague Meter Company Bridgeport  Meters—Parking	Miller Company The (domestic)  Branford  Meriden  Peahody Engineering Corp (Mechanical and/or
Machines—Turks Head enn Manufacturing Company The Hartford	Rhodes Inc M H Hartford  Microfilming	Steam Atomizer) Stamford Silent Glow Oil Burner Corp The 1477 Park St Hartford
Machines—Well Drilling 'onsolidated Industries West Cheshire	American Microfilming Service Company New Haven	Oil Burner Wicks Raybestos Div of Raybestos-Manhattan Inc The
Machines-Wire Drawing enn Manufacturing Company The Hartford	I.undeberg Engineering Company Hartford	Bridgeport Oil Tanks Norwalk Tank Co The (550 to 30M gals, under-
Magnesium Castings stamford Casting Company Stamford	John P Smith Co The 423-33 Chapel St New Haven	writers above and under ground) South Norwalk Whitlock Manufacturing Co The Hartford
Manicure Instruments V E Bassett Company The Derby	Raybestos Div of Raybestos-Manhattan Inc The (asbestos)  Ridgeport	Optical Cores & Ingots Plume & Atwood Mfg Co The Thomaston
Manganese Bronze Ingot Whipple and Choate Company Bridgeport	Millwork Hartford Builders Finish Co Hartford	Otis Woven Awning Stripes The Falls Company Norwich
Marine Engines  Gilborn-Sauer Company (running lights and searchlights)  Garage Company (running lights and Fairfield Marine)	Milling Machines Pratt & Whitney Div Niles-Bement-Pond Co (Keller Tracer—Controlled Milling Machines)	Outlets-Electric General Electric Company Bridgeport
athrop Engine Co The Mystic  Marine Equipment	Rowbottom Machine Company Inc (cam) Waterbury	Ovens—Electric Bauer & Company Inc Hartford Package Sealers
Russell Manufacturing Company The (utility cord and accessory hardware) Middletown Wilcox Crittenden & Co Inc Middletown	Wilcox Crittenden & Co Inc Middletown	Better Packages Inc Shelton Packaging
Marine Reserve Gears now-Nabstedt Gear Corp The New Haven	Miniature Precision Connectors Gorn Electric Co Stamford	Local Industries Inc (merchandising displays and packaging in wood)  Lakeville
Marking Devices  loggson & Pettis Mfg Co The New Haven Carker Stamp Works Inc The (steel) Hartford	Lux Clock Mfg Co The Waterbury  Mirror Rosettes and Hangers	Packaging Machinery  Colt's Manufacturing Company (box making machinery, Trade mark "Rite Size")  Hartford
Mattresses Vaterbury Mattress Co Waterbury	Waterbury Companies Inc Waterbury  Mixing Equipment	facturing Co  Standard-Knapp Division of Emhart Manu- facturing Co  Portland
Metal Boxes and Displays  Ourham Manufacturing Company The Durham	Eastern Industries Inc New Haven	Auburn Manufacturing Company The (leather, rubber, asbestos, fibre) Middletown
Merriam Mfg Co (Bond, Security, Cash, Util- ity, Personal Files, Drawer Safes, Custombilt containers and dsiplays) Durham	Fuller Brush Co The Hartford  Moulded Plastic Products	Raybestos Div of Raybestos-Manhattan Inc The (rubber sheet and automotive) Bridgeport
Metal Cleaners	Colt's Manufacturing Company Patent Button Co The Waterbury Waterbury Companies Inc Waterbury	Pads-Office The Baker Goodyear Company  New Haven  Padlocks
Apothecaries Hall Co Waterbury Enthone Inc New Haven MacDermid Incorporated Waterbury	Watertown Mfg Co The 117 Echo Lake Road Watertown Moulding's	Sargent & Company Waterbury Lock & Specialty Co The Milford Yale & Towne Mfg Co Inc Stamford
Metal Cleaning Machines Colt's Manufacturing Company Hartford	Himmel Brothers Co The (architectural, metal and store front) Hamden	Paints Baer Brothers Stamford
Enthone Inc Mitchell-Bradford Chemical Co Bridgeport	Moulds ABA Tool & Die Co Manchester Hoggson & Pettis Mfg Co The (steel) 114 Brewery St New Haven	Paints and Enamels Staminate Corp The New Haven
United Chromium Incorporated Waterbury  Metal Finishing	Lundeberg Engineering Company (plastics) Hartford Parker Stamp Works Inc The (compression	Moore Special Tool Co (crush wheel dresser) Bridgeport
American Associates Mfg Corp Deep River National Sheradizing & Machine Co Hartford Waterbury Plating Company Waterbury	injection & transfer for plastics) Hartford  Napper Clothing	Gair Company Inc Robert Montville Robertson Paper Box Co Montville
Metal Formings Master Engineering Company West Cheshire	Standard Card Clothing Co The (for textile mills)  Nettings	New Haven Pulp and Board Co The New Haver Paper Boxes
Metalizing Conn Metal Finishing Co Hamden	Wilcox Lace Corp The Middletown Nickel Anodes	Atlantic Carton Corp (folding) Norwick Gair Co Inc Robert (folding) Montville National Folding Box Co Inc (folding)
H C Cook Co The 32 Beaver St Ansonia	Apothecaries Hall Co Seymour Mfg Co The Waterbury Seymour	New Haven Board and Carton Co The New Haven
Metal Products—Stampings  American Brass Company The Waterbury  H Sessions & Son Bristol  Scovill Manufacturing Company (Made-to-Or- der) Waterbury 01	American Brass Company The Plume & Atwood Mfg Co The Seymour Mfg Co The Waterbury Rolling Mills Inc (sheets, strips,	Nills Inc H J Robertson Paper Box Co (folding)  Paper Boxes—Folding and Setup  Bridgeport Paper Box Company  Bridgeport
Metal Specialties Excelsior Hardware Co The Stamford	Waterbury Rolling Mills Inc (sheets, strips, rolls) Waterbury Western Brass Mills Division of Olin Industries Inc (sheet, strip) New Haven	M Backes' Sons Inc Wallingford  Paper Clips  11 C Cook Co The (steel) 32 Beaver St Ansonia
		(Advt.)

### IT'S M C 0 NEC A D E 1 N N TI C U T

Paper Mill Machinery Farrel-Birmingham Company Inc Ansonia	Plastic-Moulders Colt's Manufacturing Company Hartford	Banthin Eng
Paper Tubes and Cores Sonoco Products Co (Climax-Lowell) Div	Conn Plastics Waterbury General Electric Company Meriden Waterbury Companies Inc Waterbury	Thomas W 1
Parallel Tubes Sonoco Products Co (Climax-Lowell) Div	Watertown Mfg Co The Watertown Plastics-Moulds & Dies	Chambers-Ste
Parkerizing Mystic	Parker Stamp Works Inc The (for plastics) Hartford	United Cine
Clairglow Mfg Company Parking Meters	Plasticrete Bloc Plasticrete Corp Plasticrete Souther	Consolidated
Rhodes Inc M H Passenger Car Sander	Plates—Switch General Electric Company Platers Bridgeport	Pratt & W
Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc Meriden	American Metal Products Company Inc Bridgeport	
Pattern-Makers Farrel-Birmingham Company Inc Ausonia	Christie Plating Co City Plating Works  Groton Bridgeport	Hamilton St (propellors
Bridgeport Metal Goods Mfg Co Bridgeport	Patent Button Co The Waterbury Waterbury Plating Company Waterbury Chromium Process Company The (Chromium	
Andrew B Hendrix Co The New Haven	Plating only) Derby Platers' Equipment	Harrison Co
Pharmaceutical Specialties Ernst Bischoff Company Inc Ivoryton	Apothecaries Hall Company Conn Metalcraft Inc Lea Manufacturing Co The Waterbury Waterbury Waterbury	O'Toole & S
American Brass Company The Waterbury Miller Company The (sheets, strips, rolls)	MacDermid Incorporated Waterbury Platers Metal	Yale & Tow
Seymour Mfg Co The Seymour	Plume & Atwood Mfg Co The Thomaston Plating	F 7 .
Waterbury Rolling Mills Inc (sheets, strips, rolls) Western Brass Mills Division of Olin Indus-	American Associates Mfg Corp Deep River Christie Plating Co The (including lead plat-	Eastern Ind
tries Inc (sheet, strip) New Haven Phosphor Bronze Ingots	Conn Metal Finishing Co Hamden	Colt's Manu
Whipple and Choate Company The Bridgeport Photographic Equipment	Plating Processes and Supplies Enthone Inc New Haven	Hoggson & 141 Brewe
Kalart Company Inc Plainville Plano Repairs	United Chromium Incorporated Waterbury Plumbers' Brass Goods	Fletcher Ter
Pratt Read & Co Inc (keys and action) Ivoryton	Bridgeport Brass Co Keeney Mfg Co The (special bends) Newington Scovill Manufacturing Company Waterbury 48	
Pratt Read & Co (keys and actions, backs, plates)  Fratt Read & Voryton	Plumbing Specialties John M Russell Mfg Co Inc Naugatuck	Bristol Co
CEM Company ("Spirol") Danielson	Pole Line Hardware Malleable Iron Fittings Co Branford	Bush Manus G & O Ma
Verplex Company The Essex	Police Equipment The Smith-Worthington Saddlery Co Hartford	Vulcan Rad
American Brass Co The (brass and copper)	Polishing Wheels Williamsville Buff Div The Bullard Clark Com-	G & O Man
Bridgeport Brass Co (brass and copper) Bridgeport	Poly Chokes Danielson	G & O Man
Chas Brass & Copper Co (red brass and cop- per) Waterbury	Poly Choke Company The (a shotgun choking device)  Postage Meters  Tariffville	Hartford Ra
Crane Company (fabricated) Bridgeport Howard Co (cement well and chimney) New Haven	Pitney Bowes Inc Stamford Potentiometers—Electronic	Pratt & W (All types
Pipe Fitter's Hand Tools & Machines Capewell Mfg Co The Hartford	Bristol Company The Waterbury Power Presses	Bristol Co
Corley Co Inc Pipe Fittings Plainville	Fenn Manufacturing Company The Hartford Power Rollers Consolidated Industries Inc West Cheshire	ture, pres
Malleable Iron Fittings Co Branford	Prefabricated Buildings	Farrel-Birm Snow-Nabste
Pipe Plugs Holo-Krome Screw Corporation The (counter- sunk) West Hartford	City Lumber of Bridgeport Inc The Bridgeport Premlum Specialties	Howard Cor
Pipe Plugs—Socketed Holo-Krome Screw Corp The West Hartford	Waterbury Companies Inc Waterbury Preservatives-Wood, Rope, Fabric	Mullite Rei
Plastics Naugatuck Chemical Division United States	Darworth Incorporated ("Cuprinol") Simsbury Press Papers	Bowser Te
Rubber Co Naugatuck Sponge Rubber Products Co Inc (expanded	Case Brothers Inc Manchester	ane (mga
cellular) Shelton Plastic Bottles Plax Corporation, subsidiary of Emhart Manu-	Farrel-Birmingham Company Inc (Hydraulic Ansonia	Norwalk Va
Plastic Buttons  West Hartford	Henry & Wright Div of Emhart Manufactur- ing Company Hartford	Sorensen &
Frank Parizek Manufacturing Co The West Willington Waterbury	Presses-Molding Standard Machinery Co The (compression and transfer molding, automatic and semi-auto-	General Ele
Plastic Gems	matic) Mystic Presses—Power Waterbury Farrel Foundry & Machine Co The	C O Jeliff per nicke
Plastic Films and Sheet	Waterbury Pressure Vessels	Kanthal Co
Plax Corporation, subsidiary of Emhart Manufacturing Co West Hartford	Norwalk Tank Co Inc The (unfired to ASME Code Par U 69-70) South Norwalk	DS) American
Plax Corporation, subsidiary of Emhart Manufacturing Co  West Hartford	Whitlock Manufacturing Co The Hartford Printing	Division
Plastic Materials American Cyanamid Co (Molding Compounds	Case Lockwood & Brainard A Division of Con- necticut Printers Inc Hartford Finlay Brothers Hartford	Hartford S motive)
Adhesives, Laminating Resins) Wallingford Plastics Machinery	Heminway Corporation The Waterbury Hunter Press Hartford	Grant Mfg
Black Rock Mfg Company The Farrel-Birmingham Company Inc Ansonia	Lehman Brothers Inc Taylor & Greenough Co The T B Simonds Inc A D Steinbach & Sons New Haven New Haven	L-R Mfg D
U S Plastic Molding Corporation Wallingford	A D Steinbach & Sons The Walker-Rackliff Company  New Haven New Haven	Raybestos l (brake se

Printing Machinery gineering Co (automatic) Bridgeport Hall Company Stamford Printing Rollers
torck Company Inc The (engraved)
Norwich oduction Control Equipment
cphone Corporation Torrington Production Welding
d Industries West Cheshire Profilers
Whitney Div Niles-Bement-Pond Co
West Hartford Propellers—Aircraft
Standard Div United Aircraft Corp
rs and other aircraft equipment)
Windsor Locks Protective Coatings Company The A S (Waxes) South Norwalk Publishers Sons Inc T Stamford wne Mfg Co The Stamford Pumps—Small Industrial dustries Inc New Haven Pump Valves ufacturing Company Pettis Míg Co The (ticket & cloth) very St New Haven Putty Softeners-Electrical erry Co The Box 415 Forestville Pyrometers
The (recording and controlling)
Waterbury Radiation—Finned Copper
ufacturing Co West Hartford
anufacturing Company The
New Haven
diator Co The (steel and copper)
Hartford Radiators—Engine Cooling Rayon Staple Fiber Rocky Hill Reamers Whitney Div Niles-Bement-Pond Co West Hartford Recorders The (automatic controllers, tempera-ssure, flow, humidity) Waterbury Reduction Gears ningham Company Inc tedt Gear Corp The Ansonia New Haven Refractories ompany efractories Company The

Blak no Clari Cont

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Hartford

New Haven Shelton Refrigeration
echnical Refrigeration Div Bowser
h altitude, low temperature)
Terryville

Regulators
Valve Company (for gas and air)
South Norwalk
Stamford

Remote Control Wiring lectric Company Bridgeport

Resistance Wire

Mfg Co The (nickel chromium, copele), iron chromium, aluminum)

Southport
Corporation The (Kanthal A-1, A, D, Stamford

Respirators
Optical Company Safety Products
Putnam

Retainers Steel Ball Co The (bicycle & auto-Hartford

Riveting Machines
Grant Míg & Machine Co The
H P Townsend Manufacturing Co The
Elmwood L-R Mfg Div of The Ripley Co Torrington
Raybestos Div of Raybestos-Manhattan Inc The
(brake service equipment) Bridgeport
(Advt.)

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### T S M A D E 1 N 0 N N E CTIC

Blake & Johnson Co The (brass, copper and mon-ferrous) Waterville Mildale Connecticut Manufacturing Company The Waterbury Plume & Atwood Mfg Co The Waterbury Raybestos Div of Raybestos-Manhattan Inc The (brass and aluminum tubular and solid copper) Prideport per) Bridgeport
Raybestos Div of Raybestos Manhattan Inc The
Bridgeport (iron)

Rods

American Brass Company The (copper, brass, Waterbury bronze)
Bristol Brass Corp The (brass and bronze)
Bristol Scovill Manufacturing Company (brass and bronze) Waterbury 91 Rollers—Bituminous Paving
Gabb Special Products Div E Horton & Son
Windsor Locks

Roller Skates
Winchester Repeating Arms Company Division
Olin Industries Inc New Haven

Rolling Mills and Equipment
Farrel-Birmingham Company Inc
Waterbury Farrel Foundry & Machine Co The
Waterbury

Farrel-Birmingham Company Inc (Chilled and Alloy Iron, Steel)

Rope Wire
American Steel & Wire Div of U S Steel
New Haven

Rubber Chemicals Chemical Division United Rubber Co Stamford Rubber Supply Co The Vulcanized Vegetable Oils) Naugatuck ("Factice" Stamford

Rubber Cellular Sponge Rubber Products Co Inc Shelton

Rubber Cutting Machinery
Black Rock Mfg Company The Bridgeport

Rubberized Fabrics
Duro-Gloss Rubber Co The New Haven

Rubber Footwear Goodyear Rubber Co The Middletown Rubber Gloves Seamless Rubber Company The

Rubber-Handmade Specialties Seamless Rubber Company The New New Haven

New Haven

Rubber Latex Compounds and Dispersions laugatuck Chemical Division United States Rubber Co (coating, impregnating and adhe-sive compounds) Naugatuck

Rubber Mill Machinery Farrel-Birmingham Company Inc Ansonia

Rubber-Molded Specialties
Canfield Co The H O Bridgeport
Seamless Rubber Company The New Haven

Rubber Products—Mechanical

Auburn Manufacturing Company The (washers, gaskets, molded parts)
Canfield Co The H O Bridgeport
Seamless Rubber Company The New Haven

Rubber—Reclaimed
Naugatuck Chemical Division United States
Rubber Co Naugatuck

Rubber Vibration Pads

MB Manufacturing Company Inc The (and shocks absorbing—Isomode)

New Haven

John P Smith Co The 42 423-33 Chapel St New Haven Saddlery
The Smith-Worthington Saddlery Co Hartford

Safety Clothing cal Company Safety Products Putnam American Optical

Safety Fuses
Ensign-Bickford Co The (mining & detonating) Simsbury

Safety Gloves and Mittens Optical Company Safety Products Putnam Division

American Optical Company S Division Safety Products Putnam Saw Blades—Hack Capewell Mfg Co The Hartford

Saws-Metal & Wood Cutting Band Capewell Mfg Co The Hartford

Saws, Band, Metal Cutting
Atlantic Saw Mfg Co New Haven

Scales-Industrial Dial Bridgeport Kron Company The

Scissors Acme Shear Company The Bridgeport

Screens
Hartford Wire Works Co The (Windows, Doors
Hartford

Screw Caps Weimann Bros Mfg Co The (small for bottles)

Screw Machine Accessor to Barnahy Manufacturing and Tool Co Bridgeport Screw Machine Accessories

Screw Machines H P Townsend Mfg Company The Elmwood

Screw Machine Products

Apex Tool Co Inc The
Blake & Johnson Co The Waterville
Horberg Grinding Industries Inc (Heat treated
and ground type only)
19 Staples Street
Connecticut Manufacturing Company The
Waterbury
West Cheshire

Consolidated Industries
Eastern Machine Screw Corp The
Truman & Barclay Sts
Fairchild Screw Products Inc
Franklin Screw Machine Co The
Capacity)

West Cheshire
New Haven
Winsted
Franklin Screw Machine Co The
Capacity capacity)
Greist Mig Co The (Up to 1½" capacity)
New Haven

Humason Mfg Co The Forest Lowe Mfg Co The Wethers National Automatic Products Company The Forestville Wethersfield Berlin

Nelson's Screw Machine Products New Britain Machine Company The Plantsville Olson Brothers Company (up to ¾" capacity) capacity) Plainville

Olson & Sons R P
Peck Spring Co The
Plume & Atwood Mfg Co The
Scovill Manufacturing Company
Waterbury Machine Tools & Products Co
(Brown & Sharpe and Davenport) Waterbury

Screw Machine Tools

American Cam Company Inc (Circular Form Tools
Pratt & Whitney Div Niles-Bement-Pond Co (Reamers, Taps, Dies, Blades and Knurls)
West Hartford
Somma Tool Co (precision circular form tools)
Waterbury

American Screw Company Willimantic Atlantic Screw Works (wood) Hartford Blake & Johnson Co The (machine Bristol Company The (socket set and wood) Waterville Waterbury Willimantic Hartford Bristol Company The (socket set and socket cap)
screws)
Clark Brothers Bolt Co
Connecticut Mfg Co The (machine)
Eagle Lock Co The
Holo-Krome Screw Corporation
and socket cap)
Scovill Manufacturing Company
Superior Manufacturing Co The
Winsted West Har. Waterbury 91 Winsted

Screw-Sockets
Allen Manufacturing Company The Waterbury
Waterbury Bristol Co The Waterbury
Holo-Krome Screw Corp The West Hartford

Sealing Tape Machines
Better Packages Inc Shelton

Sewing Machines
Greist Mfg Co The (Sewing Machine attachments) 503 Blake St New Haven
Merrow Machine Co The (Industrial) Hartford
Singer Manufacturing Company The (industrial)
Bridgeport

Shaving Soaps J B Williams Co The Glastonbury

Shears Acme Shear Co The (household) Bridgeport

Shells Wolcott Tool and Manufacturing Company Inc Waterbury

Sheet Metal Products

American Associates Mfg Corp Deep River
American Brass Co The (brass and copper)

Merriam Mfg Co (security boxes, fitted tool
boxes, tackle boxes, displays) Durham
Plume & Atwood Mfg Co The
United Advertising Corp Manufacturing Division (Job and Production Runs) New Haven

Sheet Metal Stampings Sheet Metal Stam; American Brass Company The American Buckle Co The DooVal Tool & Mfg Inc The J H Sessions & Son Patent Button Co The Plume & Atwood Mfg Co The Waterbury West Haven Naugatuck Bristol Waterbury

**Shipment Sealers** Better Packages Inc Shelton

Showcase Lighting Equipment
Wiremold Company The Hartford

H C Cook Co The (for card files) 32 Beaver St

Signs Berger Sign Co (neon electric-porcelain enamel-stainless steel)

Hartford

Silk Screening on Metal
Merriam Mfg Co (Displays and Specialties, to
Durham

Sizing and Finishing Compounds
Cyanamid Company Waterbury American Cyanamid Company

Slide Fasteners
G E Prentice Mfg Co The
North & Judd Manufacturing Co
Patent Button Co The Kensington New Britain Waterbury

Silngs American Steel & Wire Div of U. S. Steel New Haven

Smoke Stacks Bigelow Company The (steel) Norwalk Tank Co The New Haven South Norwalk

Soap
J B Williams Co The (industrial soaps, toilet soaps, shaving soaps)

Glastonbury

Special Machinery
Black Rock Mfg Company The
Farrel-Birmingham Company Inc
H P Townsend Mfg Company The
Lundeberg Engineering Company
National Sheradizing & Machine Co
S stock shells for rubber industry
Hartford
Hartford
Hartford
Hartford
Hartford
Hartford

Special Parts
Greist Mfg Co The (small machines, especially precision stampings)
New Haven
J H Sessions & Son Bristol

Special Tool & Dies Lundeberg Engineering Company Hartford

Spinnings
American Metal Products Company Inc
Bridgeport
Hartford

Sponge Rubber Sponge Rubber Products Co Th Shelton Spray Painting Equipment and Supplies
Lea Manufacturing Co The Waterbury

Spring Colling Machines
Torrington Manufacturing Co The Torrington

Spring Units
Owen Silent Spring Division American Chain & Cable Company Inc Bridgeport

Spring Washers
Wallace Barnes Co The Div Associated Spring
Bristol (Advt.)

### MAD E ı 0 NNECTIC T

IT'S Springs—Coil & Flat
Bristol Spring Manufacturing Co
Foursome Manufacturing Co
Humason Mfg Co The
Newcomb Spring Corp The
Southington
New England Spring Manufacturing Company
Unionville
Plainville
Plainville
Associated Spring Peck Spring Co The Plainville
Wallace Barnes Co The Div Associated Spring
Corp Bristol Spring-Flat Bristol Spring Manufacturing Co Plainville
Foursome Manufacturing Co Bristol
Wallace Barnes Co The Div Associated Spring
Bristol Corp cew England Spring Manufacturing Company Unionville Springs-Furniture Owen Silent Spring Division American Chain & Cable Company Inc Bridgeport Springs—Wire

Bristol Spring Manufacturing Co
Colonial Spring Corporation The
Connecticut Spring Corporation The
sion, extension, torsion)
D R Templeman Co (coil and torsion)
J W Bernston Company (coil and torsion)
Plainville
South-ington Springs-Wire Newcomb Spring Corp The
New England Spring Mfg Co
Wallace Barnes Co The Div Associated Spring
Corp
Bristol Springs, Wire & Flat Autoyre Company The Oakville Stamped Metal Products
American Brass Company The Waterbury

Stamps
Hoggson & Pettis Mfg Co The (steel)
141 Brewery St
Parker Stamp Works Inc The (steel) Hartford

Stampings
American Associates Mfg Corp
American Metal Products Company
Bridgeport
Watertown Donahue Mfg Co Inc
DooVal Tool & Mfg Inc The
Foursome Manufacturing Co
Plume & Atwood Mfg Co The (small)
Waterbury

Stampings—Small
Acme Shear Co The
American Metal Products Company Inc
Bristol Spring Manufacturing Co
Greist Manufacturing Co The
Wallace Barnes Co The Div Associated
Spring Manufacturing Corp

Stationery Specialties American Brass Company Waterbury

Steel
Stanley Works The (hot and cold rolled strip)
New Britain

Farrel-Birmingham Company Inc.
Hartford Electric Steel Co The (carbon and alloy steel) 540 Flatbush Ave Hartford Malleable Iron Fittings Co
Nutmeg Crucible Steel Co

Steel Castings
Ansonia

Ansonia
Branford
Branford
Branford
Branford

Wallace Barnes Co The Div Associated Bristol

Steel-Cold Rolled Stainless
Wallingford Steel Company Wallingford

Steel-Cold Rolled Strip and Sheets American Steel & Wire Div of U S Steel Steel New Haven New Haven Detroit Steel Corporation Wallingford Steel Company New Haven Wallingford

Steel Goods
Merriam Mfg Co (sheets products to order)
Durham

Steel Rolling Rules Waterbury Lock & Specialty Co The Milford

Stanley Works The New Britain

New Haven Electrotype Div Electrographic New Haven Stop Clocks, Electric
H C Thompson Clock Co The Bristol Auburn Manufacturing Company The (textile,

Studio Couches Waterbury Mattress Co Waterbury

Super Refractories
Mullite Refractories Company The Shelton

Surface Metal Raceway & Fittings
Hartford Wiremold Company The

Surgical Dressings
Acme Cotton Products Co Inc East Killingly
Seamless Rubber Company The New Haven Surgical Rubber Goods Seamless Rubber Company The New Haven

Switches-Electric General Electric Company Bridgeport

Swaging Machinery
Hartford Special Machinery Co The Hartford Hartford Special Machinery

Switchboards Wire and Cables

Rockbestos Products Corp (asbestos insulated)

New Haven

R W Cramer Company Inc The Centerbrook

Synthetic Resins

American Cyanamid Co (Textile Resins, Paper
Waterbury Tabulating Equipment—Manual
Denominator Company Inc Woodbury

Tanks Bigelow Company The (steel) New Haven Norwalk Tank Co The South Norwalk Storts Welding Company (steel and alloy) Meriden

Tape
Russell Manufacturing Company The (woven cotton and woven glass tape) Middletown Tapes—Industrial Pressure Sensitive Seamless Rubber Company The New Haven

Tape Recorders
Conn Telephone & Electric Corp Subsidiary of
Great American Industries Inc Meriden

Tape Recorder Magazines
Conn Telephone & Electric Corp Subsidiary of
Great American Industries Inc Meriden

Tap Extractors
Walton Company The West Hartford

Taps
Pratt & Whitney Div Niles-Bement-Pond Co
West Hartford

Tarred Lines Brownell & Co Inc

Telemetering Instruments
Bristol Co The Waterbury

Telephone Answering & Recording Machines Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc Meriden

Testers—Insulation Wire & Cable
Davis Electric Company Wallingford

Testers-Non-Destructive
Sperry Products Inc Danbury

Textile Machinery
Merrow Machine Co The
2814 Laurel St

Hartford Textile Mill Supplies Ernst Bischoff Company Inc Ivoryton

Textile Processors

American Dyeing Corporation (rayon, acetate, nylon, dacron, other synthetics) Rockville Aspinook Corp The (cotton) Jewett City

Aspinook Corp

Thermometers

Bristol Co The (recording and automatic conWaterbury
Stratford

Thermostats Bridgeport Thermostat Company Inc (automa-tic) Bridgeport

tic)
Thin Gauge Metals
Plume & Atwood Mfg Co The
Thinsheet Metals Co The (plain or tinned in Waterbury

Thresd

American Thread Co The Willimantic
Belding Heminway Corticelli Putnam
Gardner Hall Jr Co The (cotton sewing)
South Willington
Max Pollack & Co Inc Groton and Willimantic
Wm Johl Manufacturing Co Mystic

Shef

G &

Tun

Colt

Brie Brie

Bea

Col

MI

MI

Ne

Thread Gages
Pratt & Whitney Div Niles-Bement-Pond Co
West Hartford

Thread Milling Machines
Pratt & Whitney Div Niles-Bement-Pond Co
West Hartford

Thread Rolling Machinery
Hartford Special Machinery Co The Hartford

Threading Machines
Grant Mfg & Machine Co The (double and auto-Bridgeport matic)

Time Recorders
Stromberg Time Corp Thomaston

Timers, Interval A W Haydon Co The H C Thompson Clock Co The R W Cramer Company Inc The Rhodes Inc M H Waterbury Bristol Centerbrook Hartford

**Timing Devices** A W Haydon Co The R W Cramer Company Inc The Lux Clock Manufacturing Company Rhodes Inc M H Seth Thomas Clocks United States Time Corporation The Waterbury Centerbrook Waterbury Hartford Thomaston Waterbury

Timing Devices & Time Switches
A W Haydon Co The Wat
Lux Clock Manufacturing Company
M H Rhodes Inc H: Waterbury Waterbury Hartford

Tinning
Thinsheet Metals Co The (non-ferrous metals in rolls) Wilcox Crittenden & Co Inc Waterbury

Hoggson & Pettis Mfg Co The (rubber workers)
141 Brewery St New Haven

Tool Chests
Vanderman Manufacturing Co The Willimantic

Tool & Dies Moore Special Tool Co Swan Tool & Machine Co The

Tools, Dies & Fixtures
Greist Mfg Co The New Haven

Tools—Pipe Fitters' Hand Capewell Mig Co The Hartford

Geo S Scott Mfg Co The Gong Bell Co The N N Hill Brass Co The Waterbury Companies Inc Wallingford East Hampton East Hampton Waterbury

American Steel & Wire Div of U S Steel
New Haven

Transformers
former Corp The New Milford
Winsted Berkshire Transformer Co Dano Electric Company

Trucks—Commercial
Metropolitan Body Company (International Harvester truck chassis and "Metro" bodies) bodies) Bridgeport

Trucks-Industrial
George P Clark Co Windsor Locks

Trucks-Li Excelsior Hardware Co The George P Clark Co -Lift Windsor Locks

Trucks-Skid Platforms Excelsior Hardware Co The (lift) Stamford

Tube Bending Donahue Mfg Co Inc Watertown

Tube Clips

H C Cook Co The (for collapsible tubes)
32 Beaver St
Weimann Bros Mfg Co The (for collapsible tubes)
Collapsible C

Scovill Mfg Co ("Uniflare") Waterbury

Tubers
Standard Machinery Co The (tubers for both rubber and plastic industries) Mystic (Advt.)

### | T ' S M A D E 1 N CONNECTICUT

Tubes-Collapsible Metal
Sheffield Tube Corp The New London American Brass Co The (brass and copper)
Waterbury Bridgeport Brass Company (brass and copper)

G & O Manufacturing Co (finned)
Sewille Manufacturing Company (Brass and Copper)

Waterbury 91 Tubing—Flexible Metallic
American Brass Co Metal Hose Waterbury Branch
Tubing—Heat Exchanger

American Brass Company The
Scovill Manufcturing Company Waterbury 91 Tumbling Equipment & Supplies
Tumbling Sales & Service Company Greenwich Tumbling Sales & Service Company, Esbec
Tumbling Division Meriden Typewriters
Royal Typewriter Co Inc
Underwood Corporation Hartford Hartford Typewriters—Portable
Royal Typewriter Company Inc
Underwood Corporation Hartford Hartford Underwood Corporation Hartford
Typewriter Ribbons and Supplies
Royal Typewriter Company Inc
Underwood Corporation
Hatford and Bridgeport Underclearer Rolls
Sonoco Products Co (Climax-Lowell Div)
Mystic Vacuum Bottles and Containers American Thermos Bottle Co Norwich Vacuum Cleaners
Old Greenwich Electrolux Corporation Spencer Turbine Co The Spencer Turbine Co Aller Valves

Norwalk Valve Company (sensitive check valves)

South Norwalk Valve Discs
Colt's Manufacturing Company
Valves—Automobile Tire
Bridgeport Brass Company
Valves—Radiator Air
Bridgeport Brass Company Hartford Bridgeport Bridgeport Valves-Relief & Control
Beaton & Caldwell Mfg Co N New Britain Valves-Safety & Relief
Manning Maxwell & Moore Inc Stratford Vanity Boxes Bridgeport Metal Goods Mfg Co Bridgeport Varnishes Baer Brothers Staminite Corp The Stamford New Haven Staminite Corp The

Velvets

American Velvet Co (owned and operated by A Wimpfheimer & Bro Inc)

Leiss Velvet Mfg Co Inc The Willimantic Velvet Textile Corporation The (Velveteen)

West Haven Venetian Blinds Findell Manufacturing Company Jennings Company The S Barry New England Shade & Blind Co Inc Manchester New Haven Durham Venetian Blind Tape Russell Manufacturing Company cotton and woven plastic) The (woven Middletown Ventilating Systems Colonial Blower Company Plainville Colonial Blower Company

Vertical Shapers

Pratt & Whitney Div Niles-Bement-Pond Co

West Hartford Vibration Isolation Mountings
MB Manufacturing Company Inc The (for truck engines, aircraft, engine mountings, special machinery) New Haven
Vibration Testing Equipment
MB Manufacturing Company Inc The
New Haven Vibrators—Pneumatic
New Haven Vibrator Company (industrial)
New Haven Charles Parker Co The
Fenn Manufacturing Company
Action Vises)
Vises
The (Quick-Action Vises)
Vanderman Manufacturing Co The (Combination Bench Pipe)
Willimantic

Washers

American Felt Co (felt)
Auburn Manufacturing Company The (all materials)
Middletown

Johnson The (brass, copper & non-fer-Waterville

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ry

Washers (Continued)
Clark Brothers Bolt Co Milldale
Plume & Atwood Mig Co The (brass & copper)
Waterbury
Raybestos Div of Raybestos-Manhattan Inc (the
clutch washers) Bridgeport
J H Rosenbeck Inc Torrington
Saling Manufacturing Company (made to order)
Unionville Washers-Felt
Chas W House & Sons Inc (Mills & Cutting Unionville Washing Machines-Electric
General Electric Company Bridgeport Watches

E Ingraham Co The
United States Time Corporation The
Waterbury Water Heaters
Whitlock Manufacturing Co The (instantaneous & storage)
Water Heaters—Electric
Bauer & Company Inc Hartford Water Heaters—Gas or Kerosene Holyoke Heater Corp of Conn Inc H Hartford Waterproof Dressings for Leather
Viscol Company The Waxes
Harrison Company The A S (and other protective coatings) Waxes-Floor
Fuller Brush Co The Hartford Wedges ring Company (hammer & Unionville Saling Manufacturing axe) welding
Farrel-Birmingham Company (Fabrication of Steel & Non-Ferrous Metals)
Industrial Welding Company (Equipment Manufacturers—Steel Fabricators)
Forupine Company The
Figure 1

Hartford Bridgeport Storts Welding Company (tanks and fabrica-tion) Helding Company (tanks and Meriden Welding Rods
American Brass Company The
Bristol Brass Co The (brass & bronze) Waterbury e) Bristol Wheels--Industrial Windsor Locks Wheels—Industrial
George P Clark Co Wicks

Auburn Manufacturing Company The (felt, asbestos)
Holyoke Heater Corp of Conn Inc
Raybestos Div of Raybestos-Manhattan Inc (the oil burner wicks)

Wheels—Industrial
Middle Midd Window & Door Guards
Hartford Wire Works Co The
Smith Co The John P New Haven Window Shades New England Shade & Blind Co Inc Durham Wiping Cloths
Federal Textile Corporation Federal Textile Corporation

Wire

American Brass Company The American Steel & Wire Div of U S Steel New Haven Branford

The (steel)

Waterbury

Waterbury New Haven Waterbury Steel lew Haven Atlantic Wire Co The (steel) Branford
Bartlett Hair Spring Wire Co The (hair spring)
North Haven Bartlett Hair Spring ... Notes and silicon Bridgeport Brass Company (brass and silicon Bridgeport Brass Ebranze) Bristol Bridgeport Brass Company (brass and silicon bronze)
Bridgeport Bristol Brass Corp The (brass & bronze)
Bristol Brass Corp The (steel)
Bristol Brass Corp The (steel)
Bristol Bristol Bristol Div (insulated & enameled magnet)
Po Box 1030
Plume & Atwood Mfg Co The (brass, bronze, nickel silver)
Scovill Manufacturing Company
and Nickel Silver)

Bristol Bristol
Winsted
Waterbury
Thomaston
Brass, Bronze
Waterbury 91 Wire and Cable
General Electric Company (for residential, commercial and industrial applications)
Reidgeport Bridgeport Wire Arches & Trellises
Hartford Wire Works Co The
John P Smith Co The
4233-33 Chapel St
New Haven

Wire Cable
Bevin-Wilcox Line Co The (braided)
East Hampton Hartford Wire Works Co The
C O Jeliff Mfg Co The (all metal, all meshes)
Pequot Wire Cloth Co Inc
Rolock Incorporated
Rolock Haven Wire Drawing Dies Waterbury Wire Die Co The Waterbury Wire Diping Baskets Hartford Wire Works Co The John P Smith Co The 423-33 Chapel St Hartford New Haven Autoyre Co The Consistence
G E Prentice Mfg Co The Kensington
Master Engineering Company
West Cheshire
North & Judd Manufacturing Co New Britain
Turner & Seymour Manufacturing Co The
Torrington
Essex Wire Formings Verplex Company The

Wire Forms

Bristol Spring Manufacturing Co
Colonial Spring Corporation The
Connecticut Spring Corporation The
Foursome Manufacturing Co
Humason Mfg Co The
New England Spring Mfg Co
Templeman Co D R
Wallace Barnes Co The Div Associated
Corp American Buckle Co The (or (overall trimmings) West Haven Waterbury Patent Button Co The Waterbury Scovill Manufacturing Company (To Order) Waterbury 91 Wire Partitions
Hartford Wire Works Co The
John P Smith Co The
423-33 Chapel St Hartford New Haven Wire Products Clairglow Mfg Company Portland
Plume & Atwood Mfg Co The (to order)
Waterbury A H Nilson Mach Co The Bridgeport American Buckle Co The (pan handles and tinners' trimmings)
Templeman Co D R Plainville Wire Rope and Strand American Steel & Wire Div of U S New Haven Wire Shapes Bridgeport Chain & Mfg Co Bridgenort Wire—Specialties Andrew B Hendryx Co The New Haven Wires and Cable
Rockbestos Products Corporation (all asbestos, mining, shipboard and appliance applications)
New Haven Wooden Boxes
Wallingford Planing Mill Co Inc Wood Handles
Salisbury Cutlery Handle Co T
& small tools) The (for cutlery Salisbury Wood Scrapers Fletcher-Terry Co The Forestville Fletcher-Terry Woodwork

C II Dresser & Sons Inc (Mfg all kinds of Hartford Woodworking Local Industries Inc Lakeville Woven Felts-Wool
Chas W House & Sons Inc (Mills & Cutting Plant)
Unionville Yarns Hartford Spinning Incorporated (Woolen, knitting and weaving yarns)

Aldon Spinning Mills Corporation The (finewoolen and specialty)

Ensign-Bickford Co The (jute-carpet)

Simsbury

688 Third Ave West Haven (Advt.)

### Boosting Export Sales by Direct Mail Campaigns

(Continued from page 17)

exporter is that much ahead in his schedule and besides can deal more effectively with his customers.

The exporter, too, should make a regular practice of using direct mail sales campaigns to keep foreign buyers informed of new product developments between his trips, as it gives a definite stimulus to the buyer to receive a direct communication from the factory, even though there may be an efficient local representative. This direct contact in no way harms the distributor and boosts sales.

In countries where it should be found that it will result in greater sales to sell direct to several non-exclusive wholesalers at distributor's prices, rather than appointing an exclusive distributor, direct mail campaigns can be

of particular value.

It is just plain common sense that campaign letters to foreign buyers should emphasize the profits they will make with your line, extoll the quality of your goods and the reliability of your company. It is wiser to stick to facts and avoid exaggerated claims as one such fabrication will permanently weaken the recipient's confidence in your integrity. Accompanying catalogs should contain graphic illustrations and apart from descriptions in English include the same in one or more of the other important commercial languages. Don't forget to tuck in price lists so that if the offer appeals to the foreign buyer he can place an order forthwith. Even if an order does not reach you by return air mail, the price lists and other data you have sent may help him to decide to do business with you at a later date. It happens sometimes, when the exporter has given up all hope of hearing from firms on his mailing list, he gets an encouraging response showing that the firm in question has meanwhile had the chance of considering the possibility of mutual benefits suggested in the letter.

When discussing credit terms your letter should explain the general policy of your company, and if the nature of your products or unsettled economic or political conditions in the foreign country call for terms of cash in advance, you must convey that this means no reflection on the client's credit standing. Credit terms extended by foreign sup-

pliers should be met within reason, especially if they offer similar goods at substantially lower prices.

Letters written in the language of the country to which they are going are apt to be much more effective, not only because it is more flattering to receive a letter in one's own language but also because there is less chance of a misunderstanding, that is if they have been conscientiously translated with due regard for idiom and technical terminology. If it is considered how uninteresting an advertisement may seem in a foreign language one does not understand, it is clear that skillful translation is imperative of letters and printed matter sent to foreign markets.

It may be helpful to offer a few suggestions about shipping terms which must be clearly stated in your letters. For example, since your overseas customer probably cannot determine the cost of transportation to the steamer, a quotation of just plain F.O.B. factory should be avoided. Instead, exporters often quote, F.O.B. factory with freight allowed to the steamship pier in the port of New York or some other port of shipment, or simply F.A.S. New York, subject to certain conditions. Sometimes the customer may prefer a quotation CIF port of entry overseas. This would include the cost of goods delivered to the steamer at the U.S. port of exit, the handling and consular charges there, the insurance premium and the ocean freight.

### **How to Send Letters**

Now a word about the method of sending your direct mail sales letters. If possible, they should go forward by first class mail or air mail, as usually if sent that way there is no duty assessed on the enclosures. Ordinary first class mail or air mail generally gets more respectful attention from the recipients although the heavier literature can be shipped as printed matter by steamer to save postage. Let's bear in mind however, that an air mail letter gets anywhere in a few days, whereas ordinary mail can take up to several months, to reach destinations that are far away and have infrequent steamer or overland service.

Direct mail campaigns therefore, are indispensable for the exporter to forge ahead in export selling, particularly under present keen competitive conditions. Such campaigns, if intelligently arranged, will not only promote better understanding with your overseas representatives and customers but will also

give satisfaction to the distributor because such campaigns are very helpful to boost the sale of your goods. Besides they will convey to him your full support of his efforts not only in maintaining but increasing sales.

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Inside Front Cover

# **AUTOMATION** offers

# New Opportunities for Connecticut's Industries

By adopting automatic operation and control to the production of Phillips' Milk of Magnesia, The Chas. H. Phillips Co. Division of Sterling Drug Inc., Stamford, Connecticut, reduces costs and makes a better product.

### OLD WAY



9

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42

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24

- One raw material was procured, handled, stored in 100-pound bags, dissolved in water, pumped to large storage tanks, pumped to reactor tank, measured by watching level on measuring stick.
- Another was procured in 50 per cent concentration, stored, diluted to 19 per cent, stored, pumped to reactor tank, measured by watching level on measuring stick.
- Water was pumped to reactor tank and measured by measuring stick.
- Progress of reaction was checked by repeated tests and observations.

### **UNDER AUTOMATIC OPERATION**



- The first raw material is procured in tank cars in crystalline form, dissolved in tank car by hot water, pumped directly to storage.
- The other is procured, stored and added to reaction in 19 per cent concentration.
- The chief ingredients, are automatically metered into reactor. Reaction is controlled as to rate of addition, time, temperature, agitation, viscosity and



A good example of how a progressive Connecticut industry has adopted automation to reduce costs, improve product and bring increased business to Connecticut.

THE HARTFORD ELECTRIC LIGHT CO.

THE CONNECTICUT POWER CO.

THE CONNECTICUT LIGHT AND POWER CO.

THE UNITED ILLUMINATING CO.

FROM THE OIL FIELDS OF TEXAS...TO BALLARD...
TO YOU FOR PENNIES PER GALLON!

BALCO BUNKER "C"

### YOUR BEST BUY IN HEATING ECONOMY!

- And when you specify Balco Bunker "C", you'll find that you're getting far more than low cost fuel—you'll discover the amazing efficiency and cleanliness of modern Bunker "C".
  - You'll feel secure, too, in the knowledge that Ballard's immense storage terminals and all weather delivery fleet guarantee a steady supply of Bunker "C" when and where you want it!
    - The heating engineers at Ballard will be glad to discuss your immediate heating requirements or long range heating plans. Phone Hartford JAckson 9-3341 or write Ballard at Box 1078 now for experienced recommendations of real value.

THE BALLAND OLL GONNECTICUT BALCO

